



LIBRARY
New Delhi

Call No. _____

Acc. No. 314302

PROCEEDINGS
OF THE
California Academy of Sciences

FOURTH SERIES

Vol. XXVII

SAN FRANCISCO
PUBLISHED BY THE ACADEMY
1951-1953

COMMITTEE ON PUBLICATION

DR. ROBERT C. MILLER, *Chairman*

DR. GEORGE S. MYERS

DR. EDWARD L. KESSEL, *Editor*

INDEX TO VOLUME XXVII

FOURTH SERIES

New names in bold-face type

- abbreviatus*, *Aragallus*, 289, 290
abdominalis, *Tanaops*, 125, 126
aboriginum, *Aragallus*, 272, 274
acadicus acadicus, *Aegolius*, 5
 Aegolius acadicus, 5
Acanthephyra cristata, 394
 curtirostris, 394
Accipiter cooperii, 3
 striatus velox, 3
acclinidens, *Cyclothone*, 409
Acesta, 378
 (*Acesta*) *agassizii*, *Lima*, 379
 diomedae, *Lima*, 379
Acesta excavata, 378
 (*Acesta*) *excavata*, *Lima*, 380
 goliath, *Lima*, 380
 goliath yagenensis, *Lima*, 380
 hamlini, *Lima*, 379
 mori, *Lima*, 379, 380, 396
 patagonica, *Lima*, 380
achardi, *Taiwania*, 500
Achillea, 546
 millefolium, 516
Acletus, 93, 95
Aemaea mitra, 384
 pelta, 384
Acnistus, 546
Acnodon, 23, 25, 26, 43
 normani, 19, 20, 28, 43, 44, 45, 61
 oligacanthus, 43, 45
aculeata, *Frullania*, 597, 601
acuminata, *Oxytropis*, 303
acutirostris, *Astragalus*, 181, 304
 Oxytropis, 304
 Spiesia, 304
adocetus, *Cololabis*, 401
adunca, *Crepidula*, 385
aëdon, *Troglodytes*, 8
Aegolius acadicus acadicus, 5
aeneipennis, *Trophimus*, 86
aeneus, *Malachius*, 87, 130
aequivoca, *Cassida*, 560
affinis, *Atherinops*, 316
 Cassida, 513
 Radula, 598, 609
agassizii, *Lima* (*Acesta*), 379
Agonidae, 421
Agriconota, 545
alascanus, *Bathylagus*, 408
alaskana, *Oxytropis*, 253, 255
alba, *Lima*, 378
albertina, *Oxytropis*, 256
albertinus, *Aragallus*, 256, 257
 Astragalus, 256
albiflora, *Oxytropis*, 272, 275
albiflorus, *Aragallus*, 272, 275, 276, 278, 279
 condensatus, *Aragallus*, 272, 274
 sericea, *Aragallus*, 278
albomarginatus, *Attalus*, 128
alcyon, *Megaceryle*, 5
almae, *Hylocichla ustulata*, 9
alpicola, *Aragallus*, 261, 262
 Astragalus, 261
 Oxytropis, 261, 262
alpinus, *Astragalus*, 182
Alternanthera, 547
 sessilis, 509, 537, 539
altidorsalis, *Metynnis*, 52
altipinnis, *Myletes*, 38
 Myleus, 30, 36, 37, 38
 Tometes, 37
amabilis, *Aspidomorpha*, 465
Amaranthaceae, 544, 547
Amaranthus, 497, 547
 paniculatus, 537
 tricolor, 537
amblytropis, *Astragalus*, 235
americana, *Oxytropis campestris*, 267
amoenus, *Regulus satrapa*, 10
Amphineura, 385
Amphissa columbiana, 385
 versicolor, 385
 versicolor incisa, 385
amplissima, *Aspidomorpha*, 466
amurensis, *Cassida* (*Taiwania*), 489, 572
 Coptocycla, 489
 Metriora, 489
 Taiwania, 488
anadyrensis, *Oxytropis*, 239
anderssonii, *Lopholejeunea*, 611
 Plagioclila, 608

- Angarida, 185
 Angiospermae, 548
 angulata, Gryphaea, 134
 angusta, Basiprionota, 455, 456
 fulva, Prioptera, 456
 Prioptera, 456
 angustata, Oxytropis, 285
 angustatus, Astragalus, 283, 285, 287
 angustipennis, Chimarra, 66, 68, 70
 Chimarra, 67
 Anisocentropus fuscus, 71
 Anisomeris, 546
 anisurus, Metynnis, 51
 annectens, Cyanocitta, stelleri, 7
 Annotated List of Fishes Obtained by the
 California Academy of Sciences During
 Six Cruises of the U.S.S. Mulberry Con-
 ducted by the United States Navy off
 Central California in 1949 and 1950, by
 W. I. Follett, 399-432
 annulicornis, Helicopsyche, 74
 Anodonta, 133
 Anoplopoma fimbria, 419, 429
 Anoplopomatidae, 419
 Antennaria, 546, 548
 antennatus, Anthocomus, 130
 Anthemis, 546
 anthinus, Passerculus sandwichensis, 12
 Anthoceros crispus, 601
 simulans, 611
 vegetans, 611
 Anthocomus, 87, 88, 90, 92
 antennatus, 130
 astratus, 90
 barri, 89
 biguttulus, 88
 bipunctatus, 130
 contortus, 130
 directus, 88, 91
 erichsoni, 88, 89, 130
 flavilabris, 130
 floricola, 130
 horni, 130
 mirandus, 130
 mixtus, 88, 130
 moerens, 130
 montanus, 130
 nigritus, 91
 shevaneii, 90, 130
 sili, 130
 ventralis, 88, 89
 Anthozoa, 385
 Anthus spinoletta pacificus, 10
 antiquorum esculenta, Colocasia, 464
 apicalis, Oecetina, 73
 Pseudebaeus, 92
 Apristurus brunneus, 406
 aquatica, Ipomoea, 464, 490, 528
 Aquila chrysaetos, 4
 Aragallo, 223
 Aragallus, 177, 179, 180, 183, 275, 279
 abbreviatus, 289, 290
 aboriginum, 272, 274
 albertinus, 256, 257
 albiflorus, 272, 275, 276, 278, 279
 albiflorus condensatus, 272, 274
 albiflorus sericea, 278
 alpicola, 261, 262
 angustatus, 283, 285, 287
 arcticus, 296
 argophyllus, 233
 articulatus, 289
 atropurpureus, 228, 229
 Aven-Nelsonii, 285, 287
 Belli, 299
 Besseyi, 230
 Bigelovii, 291
 Blankinshipii, 224, 225, 232
 bryophilus, 207, 209
 campestris johannensis, 267
 caudatus, 300, 301, 302
 cervinus, 256, 257, 259, 265
 collinus, 277, 280, 281
 dispar, 263, 288, 293
 falcatus, 285, 287
 formosus, 285, 287
 galloides, 300, 301, 302
 gracilis, 255
 hudsonicus, 245, 246
 inflatus, 235
 invenustus, 272
 involutus, 285, 287
 johannensis, 267
 Knowltonii, 291, 292
 Lagopus, 224
 Lambertii, 283, 285
 Lambertii ochroleucus, 274
 Lambertii sericeus, 272
 leucanthus, 246
 luteolus, 256, 257, 259, 262
 Macounii, 256, 257, 271, 277, 279
 majusculus, 272, 274, 275, 276
 melanodontus, 277, 279
 Metcalfei, 291, 292
 minor, 219
 monticola, 255

- multiceps, 219
 multiceps minor, 219
 nanus, 279
 oreophilus, 212
 Parryi, 217
 patens, 238, 291, 292, 293
 pinctorum, 271, 272, 274, 275, 276
 pinctorum veganus, 270, 271, 272, 274
 Richardsonii, 300
 rigens, 285, 287
 saximontanus, 272, 275
 saximontanus condensatus, 272
 sericeus, 272
 splendens, 300
 varians, 253
 veganus, 272
 ventosus, 232
 villosus, 256, 257, 258
 viscidulus, 240, 241, 242
 viscidulus depressus, 240, 241
 viscidus, 239
 viscidus depressus, 243
 araxicola, *Cassida desertorum*, 481
 arborea, *Gmelina*, 452, 466
 arctica inflata, *Oxytropis*, 203, 204, 206
 notabilis, *Oxytropis*, 209
 Oxytropis, 179, 183, 185, 190, 192, 193,
 203, 204, 206, 210, 211, 219, 246, 254,
 255, 296, 297, 298, 299, 300, 306
 Oxytropis uralsensis, 296, 298
 Spiesia, 296
 subumbellata, *Oxytropis*, 296
 umbellata, *Oxytropis*, 209, 298
 arcticus, *Aragallus*, 296
 Astragalus, 296
 Picoides, 6
 Arctobia, 183
 arctobia, *Astragalus nigrescens*, 209
 hyperarctica, *Oxytropis*, 209
 Oxytropis, 209, 210, 211, 298
 Oxytropis nigrescens, 209
 Spiesia, 209
 arecae, *Frullania*, 597, 602
 Jungermannia, 602
 Arenaria, 545
 Arene, 386
 aretioides, *Erigonum*, 217
 argentata, *Oxytropis*, 178, 232, 304
 argentea, *Celosia*, 497, 537
 argenteum, *Mylossoma*, 27
 argenteus, *Metynnis*, 20, 47, 50, 51, 52, 53,
 54
 argophylla, *Oxytropis Besseyi*, 230, 231,
 233, 234, 235, 282
 argophyllus, *Aragallus*, 233
 argutus, *Collops*, 79
 arietina, *Frullania*, 603
 arisana, *Hoplionota*, 445
 Notosacantha, 445
 arizonae, *Spizella passerina*, 12
 arizonensis, *Collops*, 80
 arnoldi, *Myloplus*, 42
 Arrabidaea, 546
 Artemia salina, 313
 Artemisia, 546
 articulata, *Oxytropis Lambertii*, 284, 286,
 288, 289, 290, 293
 articulatus, *Aragallus*, 289
 asagrayana californica, *Frullania*, 602
 Asclepias, 546
 Asclepidaceae, 545, 546, 547
 asio, *Otus*, 5
 aspera, *Ocenebra lurida*, 385
 Aspidomorpha, 443, 460, 461, 540, 545, 547,
 553, 560
 amabilis, 465
 amplissima, 466
 australasiae guerini, 535
 bajula, 467
 calligera, 463
 celebensis, 466
 chandrika, 461, 465, 542
 difformis, 461, 462
 difformis japonica, 462
 dorsata, 461, 463, 542, 543, 568
 elliptica, 468
 fraterna, 467
 furcata, 461, 463, 465, 528, 529, 530,
 534, 535, 537, 540, 542, 544, 576,
 578, 586
 fuscopunctata, 461, 464
 Heroina, 467
 indica, 461, 465
 insularis, 467
 limbipennis, 467
 lobata, 467
 micans, 463
 miliaris, 461, 465, 466, 535, 540, 542,
 543, 570, 586
 miliaris flaveola, 466
 miliaris inundata, 466
 orientalis, 467
 philippinensis, 472
 rubrodorsata, 464

- sanctae-crucis*, 461, 466, 467, 536, 540,
 542, 543, 570, 586
sedecimmaculata, 469
 (Sindiola) *parallelipennis*, 469
Stevensi, 467
transparipennis, 461, 468
transparipennis elliptica, 468
transparipennis vetula, 468
Aspidomorphini, 443, 460, 553, 561
asplenioides, *Jungermannia*, 609
 Plagiochila, 604, 609
Asterales, 546
Asterella californica, 594, 611
 palmeri, 595
asterias, *Myletes*, 41
 Myleus, 31, 37, 40, 41
 Myloplus, 41
Astragalanae, 182
Astragallus deflexus, 196
 foliolosus, 197
 Hallii, 204
 inflatus, 203
 Mertensianus, 201
 podocarpus, 203
 spicatus, 259, 271, 276, 278, 279
Astragalus, 177, 179, 180, 181, 182, 184,
 188, 217, 267, 305
 acutirostris, 181, 304
 albertinus, 256
 alpicola, 261
 alpinus, 182
 amblytropis, 235
 arcticus, 296
 baicalensi, 267
 Belli, 299
 biflorus, 204, 206
 bisontum, 219
 bisontum minor, 219
 Blankinshipii, 225
 campestris, 248, 249
 coronaminis, 296
 deflexus, 196
 deflexus foliolosus, 197
 gaspensis, 240
 Grayanus, 256, 261
 intermedius, 291
 Lambertii, 285
 Lambertii Bigelovii, 291
 leucanthus, 246, 248
 Mazama, 256
 mollissimus, 182
 montanus, 178
 monticola, 256
 Munzii, 212, 215
 nigrescens, 207, 208, 209
 nigrescens aretobia, 209
 nothoxys, 181, 305
 oreophilus, 212
 Parryanus, 217
 Parryi, 217
 pygmaeus, 207, 208, 209
 retroflexus, 196
 Rubyi, 303
 Rydbergianus, 256
 saximontanus, 272
 septentrionalis, 203
 sordidus, 305
 splendens, 300
 splendens Richardsonii, 300
 Tomae, 279
 villosus, 256
 viscidus, 239
Astyanax bimaculatus, 22
Atherinops affinis, 316
atlantica, *Placophora*, 392
 Placophora (Euplacophora), 392
Atopsyche, 66
atrata, *Frullania*, 597, 602, 604, 607, 608,
 609
atratus, *Carphuroides*, 129
 Helcogaster, 129
atratus, *Anthocomus*, 90
atricapillus fortuitus, *Parus*, 7
atripennis, *Attalus*, 96
Atriplex, 514, 545, 548
atropurpurea, *Ocenebra interfossa*, 385
 Oxytropis, 224, 228
 Oxytropis Lagopus, 185, 188, 215, 221,
 224, 226, 227, 228, 238, 260, 304
atropurpureus, *Aragallus*, 228, 229
atrosanguinea, *Frullania*, 602
Attalus, 77, 93, 94, 95, 96, 114, 116, 122,
 125, 126, 128
 albomarginatus, 128
 atripennis, 96
 australis, 96
 balteatus, 98, 109, 110
 basalis, 104
 einctus, 99, 120, 121, 131
 circumscripatus, 99, 100, 118, 131
 debilicornis, 110
 demissus, 100
 difficilis, 100, 118, 120, 126, 131
 diffusus, 99, 116, 118
 dilutimargo, 99, 100, 118
 dimidiatus, 99, 131

- elegans*, 122
foveiventris, 97
frosti, 97, 102, 131
futilis, 97, 104, 105, 131
glabrellus, 96, 101, 104, 131
granularis, 96, 104
greeni, 97, 101, 102, 116, 131
grisellus, 97, 104, 105, 116, 131
humeralis, 98, 107, 108, 109, 131
illinoisensis, 97, 102, 116
infuscatus, 121
lecontei, 97, 101, 103, 104, 105, 131
limonis, 127
lobulatus, 99, 100, 104, 118, 119, 120, 126, 131
marginipennis, 98, 100
melanopterus, 96, 101
minutus, 100
morulus, 97, 101, 102, 105, 131
morulus smithi, 97, 101, 102, 131
nigrellus, 95
nigripes, 96, 97, 105, 131
opacipennis, 118
oregonensis, 99, 103, 105, 113, 114, 115, 116, 131
oregonensis rubyae, 98, 113, 114, 115
otiosus, 97, 103, 131
pallifrons, 97, 103, 131
parallelus, 95, 107, 108
pettiti, 98, 108, 109, 131
rostratus, 99, 100, 116
rufipennis, 126
rufiventris, 95, 98, 100, 107, 108, 111, 114, 121, 123, 131
rufomarginatus, 94, 100, 124, 125, 126
rusticus, 96
santarosae, 100, 123, 126
scincetus, 99, 121, 131
scincetus confusus, 97, 98, 121
semirubidis, 98, 106, 131
serraticornis, 98, 107, 131
setosus, 99
smithi coloradensis, 101, 102
subfasciatus, 95, 99, 100
subtropicus, 100, 122
sulphureus, 98, 112
terminalis, 98, 106, 131
texanus, 100, 120, 131
transmarinus, 99, 100
trimaculatus, 100, 108, 122
tuberculifrons, 94, 99, 100
tucsonensis, 98, 110, 111, 112, 121
tucsonensis sanctus, 98, 111
unicolor, 96
utahensis, 99, 119, 120, 126
varians, 98, 131
viridivittatus, 128
zebraicus, 99
Attalusinus, 86
 submarginatus, 86
aubei, Chirida, 482
auduboni auduboni, *Dendroica*, 10
 Dendroica auduboni, 10
aulicus, Collops, 82
aureum, *Mylossoma*, 20
auriculata, *Jungermannia*, 607
 Mastigolejeunea, 607
australasiae guerini, *Aspidomorpha*, 535
australis, *Attalus*, 96
Aven-Nelsonii, *Aragallus*, 285, 287
 Oxytropis, 285
axillaris, *Dicranolejeunea*, 601
 Lejeunea, 601
Aytonia rupestris, 608
azurea, *Cassida*, 504
Baccharis, 546
baetica, *Olivella*, 385
baicalensi, *Astragalus*, 267
Baicalia, 183
bajula, *Aspidomorpha*, 467
Balanophyllia elegans, 385
Balanus flos, 385
 nubilis, 385
balteatus, *Attalus*, 98, 109, 110
 Collops, 130
Barneby, R. C., *A Revision of the North American Species of Oxytropis* Dc., 177-309
barri, *Anthocomus*, 89
basalis, *Attalus*, 104
 Endeodes, 130
 Tanaops, 131
basimargo, *Ischyronota desertorum*, 482
Basiprionota, 443, 454, 455, 540, 545, 551, 561
 angusta, 455, 456
 bimaculata, 455, 456, 535, 536, 541, 543
 bisignata, 455, 457, 568
 chinensis, 455, 457, 536, 568
 maculipennis reducta, 455, 458, 541, 568
 multipunctata, 455, 459
 pallida, 457
 whitei, 455, 459, 568
Basiprionotina, 451

- Basiprionotini*, 443, 444, 551, 561
Basipta, 545
Bassowia, 546
Batatas, *Ipomoea*, 464, 466, 472, 476, 490, 528
Bathylagidae, 408
Bathylagus alascanus, 408
 wesethi, 408
Bazzania teretiuscula, 595
Belli, *Aragallus*, 299
 Astragalus, 299
 Oxytropis, 180, 183, 185, 193, 298, 299, 300
bendirei, *Loxia curvirostra*, 12
berolinensis, *Cassida*, 505, 507
 Cassida (*Cassida*), 507
 pallidiventris, *Cassida*, 507
 pectoralis, *Cassida*, 507
Besseyi, *Aragallus*, 230
 argophylla, *Oxytropis*, 230, 231, 233, 234, 235, 232
Besseyi, *Oxytropis*, 230, 231, 232, 233, 234, 236, 260
 fallax, *Oxytropis*, 230, 231, 235, 237
 Oxytropis, 178, 184, 185, 192, 226, 229, 230, 231, 232, 235, 236, 237, 232, 304
 Oxytropis Besseyi, 230, 231, 232, 233, 234, 236, 260
 salmonensis, *Oxytropis*, 230, 231, 234, 236
 ventosa, *Oxytropis*, 230, 231, 232, 233, 234, 235, 236, 260, 275
Beta, 545
 vulgaria, 514
betteni, *Curgia*, 68
bicensis, *Oxytropis campestris johannensis*, 186
 Oxytropis johannensis, 267
bicolor, *Perisoreus canadensis*, 7
 Pseudebaeus, 131
bicostata, *Cassida*, 511
bidens, *Colossoma*, 20, 27
bidentata, *Jungermannia*, 605
 Lophocolea, 605
biforus, *Astragalus*, 204, 206
Bigelovii, *Aragallus*, 291
 Astragalus Lambertii, 291
 Oxytropis Lambertii, 233, 261, 275, 284, 286, 289, 290, 291, 292, 293, 305
Bignonia, 546
Bignoniaceae, 545, 546, 547, 548
biguttulata, *Cassida*, 515
biguttulus, *Anthocomus*, 88
bilineata, *Lepidopsetta*, 413
 Platessa, 413
bilocularis, *Oxytropis*, 291, 292, 293
bimacula, *Cassida*, 456
bimaculata, *Basiprionota*, 455, 456, 535, 536, 541, 543
 Cassida, 456
 Prioptera, 457
bimaculatus, *Astyanax*, 22
bipunctatus, *Anthocomus*, 130
 Collops, 78, 108, 130
biramosa chinensis, *Thlaspidia*, 474, 570
 Coptocycla, 475
 japonica, *Thlaspidia*, 474, 475
 Thlaspidia, 475
Birds of Northeastern Idaho, Observations on the, by Robert T. Orr, 1-16
bisignata, *Basiprionota*, 455, 457, 568
 Prioptera, 457
bisontum, *Astragalus*, 219
 minor, *Astragalus*, 219
bispinatus, *Euprotomicrus*, 159, 160, 161, 171
 Scymnus, 159
Blankinshipii, *Aragallus*, 224, 225, 232
 Astragalus, 225
 Oxytropis, 223, 224, 226
Blattaria, 526
boekeri, *Serrasalmus*, 55
Bohemani, *Lacoptera*, 471
 Lacoptera quadrimaculata, 471, 472
Bonasa umbellus phala, 4
bona-nox, *Calonyction*, 466
Boraginaceae, 545, 546, 547
borealis, *Gennadas*, 393
 Helicopsyche, 65, 74
 Notidobia, 74
 Nuttallornis, 7
 Oxytropis, 246, 248
Bothidae, 413
bowringii, *Chirida*, 483
 Chiridopsis, 483, 572
 Coptocycla, 483
brachiata, *Jungermannia*, 607
 Marchesinia, 602, 607
Brachiolejeunea densifolia, 595
 galapagona, 611
 grandidentata, 595, 596, 597, 602, 608, 610, 614
Brachylaenia, 546
brasiliensis, *Frullania*, 602
breuteliana, *Plagiochila*, 609

- bridgeri, Collops, 78, 80
 brooksi, Hesperiphona vespertina, 11
 Bruchidae, 437, 438
 Brucki, Cassida, 520
 brunnea, Tegula, 385
 brunneus, Apristurus, 406
 bryophila, Oxytropis nigrescens, 207, 208
 bryophilus, Aragallus, 207, 209
 Bryopteris flicina, 595, 597
 galapagona, 597
 tenuicaulis, 597
 Bubo virginianus, 5
 bullata, Lejeunea, 607
 Microlejeunea, 607
 bursata, Jungermannia, 609
 Plagiochila, 598, 599, 604, 607, 609
 Bushii, Oxytropis, 285, 287
 Buteo jamaicensis, 4
 Caeciabia, 183
 caerulea, Sardinops, 311, 322
 cafer, Colaptes, 6
 cairica, Ipomoea, 464, 490, 528
 Calamoceratidae, 72
 calichromus, Metynnis, 48
 schreitmülleri, Metynnis, 48
 californiana, Trivia, 385
 californianus, Laqueus, 376
 Mytilus, 142
 Nassarius, 385
 californica, Asterella, 594, 611
 Cryptomya, 384
 Fimbriaria, 594
 Frullania, 602
 Frullania asagrayana, 602
 Helicopsyche, 74
 Liotia, 386, 387
 Nuttallina, 385
 californiense, Mycetophum, 400, 411
 Callicarpa, 546, 547
 formosana, 476
 japonica, 476
 calligera, Aspidomorpha, 463
 Calliostoma costatum, 385
 gloriosum, 385
 platinum, 337, 380, 396
 Callispa, 560
 Callolima, 378
 (Callolima) rathbuni, Lima, 378
 Callorhinus ursinus, 411
 Calonyction, 547
 bona-nox, 466
 Calopepla, 451
 leayana insulana, 451
 Calypogeia miquelii, 597, 599, 611
 Calystegia, 546
 sepium japonica, 462
 Campanulariae, 548
 Campestres, 223
 campestris americana, Oxytropis, 267
 Astragalus, 248, 249
 cascadensis, Oxytropis, 251
 cervinus, Oxytropis, 251
 chartacea, Oxytropis, 251, 253, 265, 269
 coerulea, Oxytropis, 249
 columbiana, Oxytropis, 251, 253, 264, 265
 Cusickii, Oxytropis, 251, 253, 254, 259, 261, 262, 263, 265, 278
 dispar, Oxytropis, 188, 251, 253, 260, 263, 264, 265, 288
 glabrata, Oxytropis, 258, 293, 294, 295
 gracilis, Oxytropis, 188, 241, 244, 250, 253, 254, 255, 258, 259, 260, 261, 262, 263, 265, 278, 279, 288
 johannensis, Aragallus, 267
 johannensis bicensis, Oxytropis, 186
 johannensis, Oxytropis, 251, 253, 265, 267, 268, 269, 288
 luteola, Oxytropis, 250
 Mazama, Oxytropis, 251
 melanocephala, Oxytropis, 249, 293, 295
 okanoganea, Oxytropis, 251
 olympica, Oxytropis, 250
 Oxytropis, 178, 179, 184, 185, 186, 188, 192, 193, 206, 210, 239, 242, 243, 248, 249, 250, 252, 254, 255, 259, 262, 265, 266, 267, 268, 277, 278, 279, 288, 297, 305
 paysoniana, Oxytropis, 251
 Rydbergii, Oxytropis, 251, 261
 sordida, Oxytropis, 248, 255, 306
 speciosa, Oxytropis, 274, 276, 277, 279
 spicata, Oxytropis, 276, 277
 sulphurea, Oxytropis, 276, 279
 terrae-novae, Oxytropis, 190, 191, 251, 253, 265, 266, 267, 268, 305, 306
 varians, Oxytropis, 183, 189, 244, 248, 250, 252, 253, 254, 255, 265, 295
 verrucosa, Oxytropis, 246, 248
 villosa, Oxytropis, 250
 canadensis bicolor, Perisoreus, 7
 Oxytropis Lambertii, 305
 Sitta, 8
 cancellata, Liotia, 386

- canterai, Colossoma, 27
 Capsicum, 546
 Carangidae, 414
 Carcharhinidae, 406
 Carduus, 546
 carolinensis, Dumetella, 9
 carpenteri, Homalopoma, 385
 Carphuroides, 129
 atratulus, 129
 Carphurus, 94, 129
 Carpodacus cassinii, 11
 Caryophyllaceae, 544, 545, 547, 548
 cascadenis, Oxytropis, 256, 257, 258
 Oxytropis campestris, 251
 Cassida, 443, 484, 485, 487, 504, 509, 544,
 545, 547, 548, 557, 560, 561, 562
 aequivoca, 560
 affinis, 513
 azurea, 504
 berolinensis, 505, 507
 (Cassida) berolinensis, Cassida, 507
 Cassida berolinensis pallidiventris, 507
 berolinensis pectoralis, 507
 bicostata, 511
 biguttulata, 515
 bimacula, 456
 bimaculata, 456
 Brucki, 520
 (Cassida) berolinensis, 507
 (Cassida) fusciorufa, 507
 (Cassida) jacobsoni, 508
 (Cassida) japana, 508, 539, 540, 542,
 544, 580
 (Cassida) klapperichi, 509, 572
 (Cassida) laticollis, 510, 574
 (Cassida) lineola, 511, 572
 (Cassida) mandli, 512, 572
 (Cassida) mongolica, 513
 (Cassida) nebulosa, 513, 540, 542, 543
 (Cassida) nucula, 514
 (Cassida) pallidicollis, 514, 572
 (Cassida) piperata, 515
 (Cassida) prasina, 516
 (Cassida) probata, 516
 (Cassida) rubiginosa, 542, 544
 (Cassida) rubiginosa rugosopunctata,
 517
 (Cassida) rubiginosa taiwana, 517
 (Cassida) sikanga, 518, 574
 (Cassida) spaethi, 520
 (Cassida) stigmatica, 520
 (Cassidula) nobilis, 442
 (Cassidula) parvula, 524
 (Cassidula) velaris, 524
 (Cassidula) vittata, 442
 (Cassidulella) parvula, 524
 (Cassidulella) velaris, 524
 catenata, 442, 491
 chinensis, 457
 chloris, 516
 circumdata, 442, 489, 491, 494, 539
 clathrata, 468
 comparata, 524
 concha, 504
 conicicollis, 481
 consociata, 507
 cuticula, 490
 daurica, 507
 (Deloyala) vespertina, 486
 deltoides, 525
 desertorum, 481
 desertorum araxicola, 481
 diabolica, 514
 discale, 491
 dorsata, 463
 echinata, 445
 elevata, 466
 eoa, 491
 equestris, 522
 erudita, 517
 fenestrata, 520
 furcata, 463
 fusciorufa, 506, 507, 519
 (Cassida) fusciorufa, Cassida, 507
 Cassida gibbula, 481
 hablitziae, 485
 imitatrix, 495
 jacobsoni, 506, 508, 511, 519
 (Cassida) jacobsoni, Cassida, 508, 572
 Cassida Jakowlewii, 482
 japana, 505, 508, 539
 (Cassida) japana, Cassida, 508, 539, 540,
 542, 544, 580
 Cassida juglans, 496
 juno, 496
 klapperichi, 505, 509
 (Cassida) klapperichi, Cassida, 509, 572
 Cassida Kraatzi, 520
 labilis, 515
 (Lasiocassis) vespertina, 486
 laticollis, 506
 (Cassida) laticollis, Cassida, 510, 574
 Cassida lineola, 505, 509, 511
 (Cassida) lineola, Cassida, 511, 572
 Cassida lineola formosana, 511
 lineola nigrostrigata, 511

- lineola russica*, 511
lineola sibirica, 511
maculata, 513
mandli, 506
(Cassida) *mandli*, Cassida, 512, 572
Cassida *micans*, 463
miliaris, 460, 465, 472
(Mionycha) *concha*, 504
(Mionycha) *margaritaceae*, 548
(Mionycha) *morawitzi*, 514
mongolica, 506, 513
(Cassida) *mongolica*, Cassida, 513
Cassida *moori*, 442
navicula, 524
nebulosa, 484, 504, 505, 513
(Cassida) *nebulosa*, Cassida, 513, 540, 542, 543
Cassida *nigra*, 513
nigriventris, 442
nigroguttata, 511
nigrostrigata, 511
nucula, 505, 514
(Cassida) *nucula*, Cassida, 514
Cassida *obsoleta*, 507
obtusata, 494, 497, 538, 539
octopunctata, 455
(Odontionycha) *inflata*, 521, 574
(Odontionycha) *viridis*, 522, 540, 542, 544
pallidicollis, 505, 514
(Cassida) *pallidicollis*, Cassida, 514, 572
Cassida *pallidicollis morawitzi*, 514
parvula, 524
piperata, 505, 515
(Cassida) *piperata*, Cassida, 515
Cassida *piperata japonica*, 509
prasina, 506, 516
(Cassida) *prasina*, Cassida, 516
Cassida *probata*, 505, 516
(Cassida) *probata*, Cassida, 516
Cassida *punctaria*, 483
punctata, 483
quaturodecimpunctata, 466
rati, 499, 500
rubiginosa, 517
(Cassida) *rubiginosa*, Cassida, 542, 544
Cassida *rubiginosa rubiginosa*, 518
rubiginosa rugosopunctata, 506, 517, 518
(Cassida) *rubiginosa rugosopunctata*, Cassida, 517
Cassida *rubiginosa taiwana*, 506
(Cassida) *rubiginosa taiwana*, Cassida, 517
Cassida *rugosopunctata*, 517
rugifera, 509
russata, 507, 513
russica, 511
sauteri, 500
St. Crucis, 466
salsolae, 481
sanguinolenta prasina, 516
sanguinolenta stigmatica, 520
sedecimmaculata, 469
seraphina, 485
sibirica, 511
signata, 511
sikanga, 506
(Cassida) *sikanga*, Cassida, 518, 574
Cassida *singularis*, 520
spaethi, 506, 520
(Cassida) *spaethi*, Cassida, 520
Cassida *spaethi mandschukuoensis*, 520
spaethiana, 502
stigmatica, 506, 520
(Cassida) *stigmatica*, Cassida, 520
Cassida *suturalis*, 511
(Taiwania) *amurensis*, 489, 572
(Taiwania) *circumdada*, 489, 537, 540, 542, 544, 570, 586
(Taiwania) *discahis*, 491, 574
(Taiwania) *eoae*, 491
(Taiwania) *expansa*, 492
(Taiwania) *expressa*, 493
(Taiwania) *imitatrix*, 493, 574
(Taiwania) *insulana*, 495, 574
(Taiwania) *juglans*, 496
(Taiwania) *juno*, 496
(Taiwania) *obtusata*, 497, 537, 540, 542, 544, 582
(Taiwania) *plausibilis*, 498, 570
(Taiwania) *purpuricollis*, 498
(Taiwania) *quadriramosa*, 499
(Taiwania) *rati*, 500
(Taiwania) *sauteri*, 500
(Taiwania) *sigillata*, 501
(Taiwania) *spaethiana*, 502, 570
(Taiwania) *versicolor*, 502, 570
testudo, 485
tigrina, 513
tredecimpunctata, 472
trilineata, 478
trivittata, 490
turemenica, 442
(Tylocentra) *deltoides*, 525

- (Tylocentra) *lenis*, 526
 (Tylocentra) *virguncula*, 526
U-fusum, 490
undecimnotata, 442
velaris, 524
versicolor, 493, 495
versicolor crucifera, 503
vespertina, 485, 486
virguncula, 526
viridana, 516
viridis, 521, 522
vittata, 523
Cassidinae, 433, 434, 438, 439, 440, 442, 443, 526, 527, 540, 541, 544, 547, 549, 550, 552, 554, 555, 560, 561, 562
Cassidini, 443, 473, 553, 560
Cassidispa, 560
Cassidula, 484, 485, 523, 557
 (Cassidula) *nobilis*, Cassida, 442
 parvula, Cassida, 524
 velaris, Cassida, 524
 vittata, Cassida, 442
Cassidulella, 523, 544, 545, 547, 548
 parvula, 523
 (Cassidulella) *parvula*, Cassida, 524
Cassidulella velaris, 523
 (Cassidulella) *velaris*, Cassida, 524
cassini, Carpodacus, 11
castanea, Hoplionota, 446
 Notosacantha, 445, 446
catalinae, Frullania, 602
catenata, Cassida, 442, 491
Catoprion, 18, 23, 25, 26, 54
 mento, 20, 22, 28, 54
Caudalejeunea lehmanniana, 597
caudata, Oxytropis, 300
caudatus, Aragallus, 300, 301, 302
caviceps, Nodopus, 92, 93
c-d-adamsi, Liotia, 386
celebensis, Aspidomorpha, 466
Celosia, 546
 argentea, 497, 537
 cristata, 537
Centaurea, 546, 548
centimodia, Hoplionota, 446
 Notosacantha, 445, 446
Centroseymnus, 163
Centrospermae, 545, 547, 548
Cephalozia nematodes, 611
Cerambycidae, 437, 438, 439
Cerambycoidea, 437
Ceratolejeunea lobata, 597, 598, 616
 maritima, 598, 604, 605, 609
 spinosa, 599
Certhia familiaris, 8
cervinus, Aragallus, 256, 257, 259, 265
 Oxytropis campestris, 251
Chaetura vauxi, 5
chandrika, Aspidomorpha, 461, 465, 542
Characid Fishes of the Subfamily Serrasalminae, Notes on the, by William A. Gosline, 17-64
Charidotis, 545, 547
chartacea, Oxytropis, 269
 Oxytropis campestris, 251, 253, 265, 269
Chauliodontidae, 410
Chauliodus macouni, 400, 410
Cheilolejeunea decidua, 594, 599, 601, 603, 607, 609, 611
Chelyomorpha, 545, 547
chenopoda, Marchantia, 612
Chenopodiaceae, 544, 545, 547, 548
Chenopodium, 462, 468, 514, 545
Chesterman, Charles W., Descriptive Petrography of Rocks Dredged off the Coast of Central California, 359-374
Cheumatopsyche mickeli, 66, 71
Chimaeridae, 407
Chimarra angustipennis, 66, 68, 70
Chimarra elia, 66, 68
 laguna, 66, 68, 69
 utahensis, 65, 67
Chimarra angustipennis, 68
 idahoensis, 67
 utahensis, 67
chinensis, Basiprionota, 455, 457, 536, 568
 Cassida, 457
 Lacoptera, 471
 Megapyga, 452
 Prioptera, 457
 Thlaspida, 474, 503
 Thlaspida *biramosa*, 474, 570
Chionoecetes tanneri, 395
Chirida, 482
 aubei, 482
 bowringii, 483
 punctaria, 483
 punctata, 483
 promiscua, 442
Chiridopsis, 444, 482, 483, 553, 561
 bowringii, 483, 572
 punctata, 483, 572
Chirolophis, 422
 nugator, 422

- Chiton from Pioneer Seamount off Central California, A Rare Species of, by A. G. Smith and G. D. Hanna, 389-392
 Chlamisinae, 438, 440, 552
 Chlamydinae, 438
 chloris, Cassida, 516
 Chordeiles minor, 5
 Chorilia longipes, 395
 chrysaetos, Aquila, 4
 Chrysodomus, 339
 Chrysomelidae, 433, 437, 438, 439, 550, 552, 561
 Chrysomelinae, 438, 440, 552
 Chrysopidae, 527
 Church, Clifford C., A New Species of Foraminifera of the Genus Discorbis Dredged off the Coast of California, 375-376
 Cichorium, 546
 Cidarina cidaris, 380, 396
 cidaris, Cidarina, 380, 396
 ciliata, Polydora, 136
 Cinclus mexicanus, 8
 cinctus, Attalus, 99, 120, 121, 131
 Collops, 83
 circumdata, Cassida, 442, 489, 491, 494, 539
 Cassida (Taiwania), 489, 537, 540, 542, 544, 570, 586
 Coptocycla, 490
 Metriona, 490
 pescadorensis, Metriona, 490
 Taiwania, 488
 circumscriptus, Attalus, 99, 100, 118, 131
 Cirripedia, 385
 Cirsium, 523, 546
 Cistudinella, 545
 Citharichthys sordidus, 413
 Citharininae, 24
 Citrus, 538
 limonia, 537
 maxima, 537
 nobilis, 537
 sinensis, 538
 cladogyna, Lejeunea, 603, 604, 609
 Clark, Lois, Some Hepaticae from the Galapagos, Cocos, and Other Pacific Coast Islands, 593-624
 clathrata, Cassida, 468
 Clematis, 548
 Clytrinae, 438, 440, 552
 Cocculina, 377
 Cocos, 546
 cocosensis, Frullania, 599, 602, 607
 cocosensis, Lopholejeunea, 598, 603, 604, 605, 609, 610, 620, 622
 coelestinus, Tanaops, 87, 130
 coerula, Oxytropis campestris, 249
 coeruleomaculata, Megapyga, 452
 Colaptes cafer, 6
 collaris, Epistichia viridimaculata, 453
 collei, Hydrolagus, 407
 collina, Oxytropis, 280
 collinus, Aragallus, 227, 280, 281
 Collops, 78, 83
 argutus, 79
 arizonensis, 80
 aulicus, 82
 balteatus, 130
 bipunctatus, 78, 108, 130
 bridgeri, 78, 80
 cinctus, 83
 confluens, 86, 130
 cribrosus, 130
 discretus, 130
 dux, 130
 femoratis, 86
 flavicinctus, 79, 130
 floridanus, 130
 granellus, 130
 hirtellus, 130
 histrio, 79, 130
 histrionicus, 85
 insulatus, 130
 knulli, 84
 limbellus, 130
 marginicollis, 81, 82, 130
 necopinus, 130
 nigriceps, 130
 oklahomensis, 78
 pallipes, 83
 peninsularis, 85
 punctatus, 130
 punctulatus, 130
 quadrimaculatus, 130
 reflexus, 130
 similis, 84, 85, 130
 simplex, 82
 spretus, 80
 subaeneus, 130
 sublimbatus, 130
 texanus, 130
 tibialis, 80
 tricolor, 84, 130
 utahensis, 130
 versatilis, 130

- vittatus, 79, 130
Colocasia antiquorum esculenta, 464
Cololabis adocetus, 410
 saira, 410
Cololejeunea coseguinana, 599, 600, 618
 minutissima, 600, 622
 myriocarpa, 600, 622
 sicaefolia, 601
coloradensis, *Attalus smithi*, 101, 102
Colossoma, 18, 23, 25, 26, 27
 bidens, 20, 27
 canterai, 27
 mitrei, 27
 nigripinne, 20
 nigripinnis, 23
 oculus, 27
columbiana, *Amphissa*, 385
 Nucifraga, 7
 Oxytropis, 264
 Oxytropis campestris, 251, 253, 264, 265
comparata, *Cassida*, 524
complex, *Tanaops*, 87, 130
Compositae, 545, 546, 547, 548
Compsomyx, 358
concha, *Cassida*, 504
 Cassida (*Mionycha*), 504
Concha excavata, 378
Conchyloctenia, 545
condensata, *Oxytropis*, 272, 275
condensatus, *Aragallus albiflorus*, 272, 274
 Aragallus saximontanus, 272
confluens, *Collops*, 86, 130
confusus, *Attalus scincetus*, 97, 98, 121
conicicollis, *Cassida*, 481
 Ischyronota, 481
conjugans, *Oxytropis Lagopus*, 221, 224, 225, 226, 227
consociata, *Cassida*, 507
constellatus, *Sebastodes*, 417
Contopus richardsonii, 7
contortus, *Anthocomus*, 130
convexistipa, *Cyclolejeunea*, 593, 601
 Jungermannia, 601
Convolvulaceae, 545, 546, 547, 548
Convolvulus, 466, 514, 546, 547
 japonicus, 465
cooperi, *Nassarius mendicus*, 385
cooperii, *Accipiter*, 3
Coptocyela, 484, 486, 487, 545, 547
 amurensis, 489
 biramosa, 475
 Bowringii, 483
 circumdata, 490
 cribrosa, 474
 crucifera, 502
 lepada, 478
 Lewisii, 477
 luzonica, 490
 plausibilis, 498
 punctaria, 483
 sigillata, 501
 sparsa, 515
 spilota, 479
 testacea, 477
 Thais, 502
 transparipennis, 468
 trivittata, 490
 versicolor, 502
Cordia, 546
corax, *Corvus*, 7
coronaminis, *Astragalus*, 296
 Oxytropis, 296, 297, 298
Corvus corax, 7
coseguinana, *Cololejeunea*, 599, 600, 618
costatum, *Calliostoma*, 385
Cottidae, 420
Crago nigricauda, 395
 resima, 394
Craton nigricauda, 395
 resima, 394
Craspedonta, 443, 451, 545, 547, 551
 leayana, 540
 leayana insulana, 451, 536, 541, 543
Creagrutus, 43
Crenuchinae, 24
crenularis, *Tarletonbeania*, 410
Crepidula adunca, 385
Crepipatella lingulata, 385
cribrosa, *Coptocyela*, 474
cribrosus, *Collops*, 130
Criocerinae, 438, 440, 552
crispus, *Anthoceros*, 601
 Dendroceros, 601
cristata, *Acanthephyra*, 394
 Celosia, 537
 Spirontocaris, 394
cristatus, *Sphaerocarpus*, 610
crucifera, *Cassida versicolor*, 503
 Coptocyela, 502
 Metriona thais, 503
Cryptocephalinae, 438, 440, 552
Cryptomya californica, 384
Cryptostomata, 560
Cteisella, 545
Ctenochira, 545

- cucullata*, *Frullania*, 603, 604, 606, 608, 610
Cucurbita, 546
Cucurbitaceae, 545, 546, 547
Cucurbitales, 546
culminis, *Oxytropis deflexa*, 199
Curgia, 68
 betteni, 68
currucoides, *Sialia*, 9
curtirostris, *Acanthephyra*, 394
curvirostra bendirei, *Loxia*, 12
Cusickii, *Oxytropis*, 261, 262
 Oxytropis campestris, 251, 253, 254,
 259, 261, 262, 263, 265, 273
cuticula, *Cassida*, 490
Cyanocitta stelleri annectens, 7
Cyclolejeunea convexistipa, 593, 601
Cyclothone acclinidens, 409
 pallida, 400, 409
 signata, 408
Cynanchum, 545
Cynara, 546
Dalatias, 162, 163, 164
Dalatiidae, 160, 162, 163, 164, 171
Dalatiinae, 164, 171
dalli, *Phocoenoides*, 411
daurica, *Cassida*, 507
debilicornis, *Attalus*, 110
decagrammus, *Hexagrammos*, 400, 419, 430
Decapod Crustacea Dredged off the Coast
 of Central California, Some, by Delbert
 G. Goodwin, 393, 397
decidua, *Cheilolejeunea*, 594, 599, 601, 603,
 607, 609, 611
 Lejeunea, 599
decipiens, *Frullania*, 611
deflexa culminis, *Oxytropis*, 199
 deflexa, *Oxytropis*, 196, 197, 201, 304
 foliolosa, *Oxytropis*, 196, 197, 198, 201
 Oxytropis, 178, 183, 185, 190, 193, 194,
 195, 196, 197, 199, 303, 304
 Oxytropis deflexa, 196, 197, 201, 304
 sericea, *Oxytropis*, 196, 197, 199, 200,
 201
 subcapitata, *Oxytropis*, 194, 198
deflexus, *Astragalus*, 196
 Astragalus, 196
 foliolosus, *Astragalus*, 197
Delocrania, 544
Deloyala, 482, 484, 485, 545, 560
 difformis, 462
 vespertina, 486
 (*Deloyala*) *vespertina*, *Cassida*, 486
deltoides, *Cassida*, 525
 Cassida (*Tylocentra*), 525
 Tylocentra, 525
demissus, *Attalus*, 100
Dendragapus obscurus richardsonii, 4
Dendroceros crispus, 601
Dendrocepos pubescens leucurus, 6
 villosus monticola, 6
Dendroica auduboni auduboni, 10
 townsendi, 10
densifolia, *Brachiolejeunea*, 595
 Frullanioides, 595, 596, 597
dentatus, *Neoscopelarchoides*, 400, 412
denticulatus, *Pygopristus*, 20, 54
depressus, *Aragallus viscidulus*, 240, 241,
 243
 Aragallus viscidus, 243
Description of a New Pelecypod of the
 Genus Lima from Deep Water off Cen-
 tral California, by Leo George Hertlein,
 377-381
Descriptive Petrography of Rocks
 Dredged off the Coast of Central Cali-
 fornia, by Charles W. Chesterman,
 359-374
desertorum araxicola, *Cassida*, 481
 basimargo, *Ischyronota*, 482
 Cassida, 481
 Ischyronota, 481, 482
Desmonota, 545
diabolica, *Cassida*, 514
Dianthus, 545, 548
Diaphus theta, 411
Dicranolejeunea axillaris, 601
dieneri, *Mysidoptera* (*Pseudacesta*), 378
difficilis, *Attalus*, 100, 118, 120, 126, 131
difformis, *Aspidomorpha*, 461, 462
 Deloyala, 462
 japonica, *Aspidomorpha*, 462
diffusus, *Attalus*, 99, 116, 118
digitata, *Ipomoea*, 464, 490, 528
dilutimargo, *Attalus*, 99, 100, 118
dimidiatus, *Attalus*, 99, 131
diomedae, *Lima*, 379
 Lima (*Acesta*), 379
Diphragma, 252
directus, *Anthocomus*, 88, 91
discale, *Cassida*, 491
discalis, *Cassida* (*Taiwania*), 491, 574
 Taiwania, 489
discoidens, *Myletes*, 31, 40
Discorbis, 375, 376
 laquei, 375, 396
discretus, *Collops*, 130

- disjuncta, *Oecetina*, 74
 Oecetis, 65, 74
 dispar, *Aragallus*, 263, 288, 293
 Oxytropis, 263, 288
 Oxytropis campestris, 188, 251, 253,
 260, 263, 264, 265, 288
Distichodontinae, 24
divaricatus, *Myletes*, 30, 38, 39, 40
doidyxodon, *Myletes*, 30, 38
Donaciinae, 438, 440, 550, 552
dorsata, *Aspidomorpha*, 461, 463, 542, 543,
 568
 Cassida, 463
Dorynota, 545
Draba fladnizensis, 197
 subalpina, 217
dubitans, *Tanaops*, 130
Dumetella carolinensis, 9
duriuscula, *Euosmolejeunea*, 601, 603
 Lejeunea, 601
duriventre, *Mylosoma*, 27, 28
dux, *Collops*, 130
eboracensis, *Frullania*, 603, 608
eburatus, *Sphinginus*, 128
ecaadata, *Oxytropis ixodes*, 241, 243
Echidnocerus foraminatus, 395
echinata, *Cassida*, 445
Echinorhinidae, 164, 171
Echinorhininae, 164, 171
Echoma, 545
edulis, *Ostrea*, 133, 134, 135, 137, 142, 143,
 154
ehrharti, *Metynnis*, 48
eigenmanni, *Metynnis*, 51
elegans, *Attalus*, 122
 Balanophyllia, 385
elevata, *Cassida*, 466
elia, *Chimarra*, 66, 68
elliptica, *Aspidomorpha*, 468.
 Aspidomorpha transparipennis, 468
ellipticus, *Myletes*, 31, 41
elongatus, *Ophiodon*, 419
 Serrasalmus, 20
Empidonax, 6
Endeodes basalis, 130
Engraulididae, 407
Engraulis mordax, 316
 mordax mordax, 407
enucleator, *Pinicola*, 11
eo, *Cassida*, 491
 Cassida (*Taiwania*), 491
 Metriona, 491
 Taiwania, 487
Epistictia, 443, 541, 543, 551
 marginata, 453
 Parryi, 453
 perplexa, 453
 viridimaculata, 453
 viridimaculata collaris, 453
Epomides, 376
 repandus, 376
equestris, *Cassida*, 522
erecta, *Oxytropis*, 254
erichsoni, *Anthocomus*, 88, 89, 130
Eriogonum aretioides, 217
erudita, *Cassida*, 517
esculenta, *Colocasia antiquorum*, 469
Eumolpinae, 438, 440, 552
Euosmolejeunea duriuscula, 601, 603
 trifaria, 599, 601, 602, 603, 605, 609
Euoxytropis, 182, 183
Eupatorium, 546
Euphorbiaceae, 545
(Euplacophora) atlantica, *Placophora*, 392
Euprotomicrus, 160, 161, 162, 163, 164,
 165, 169, 171
 bispinatus, 159, 160, 161, 171
 hyalinus, 160, 161, 171
Eurypepla, 545
excavata, *Acesta*, 378
 Concha, 378
Excavata Fabricii, 378
excavata, *Lacoptera*, 470
 Lima (*Acesta*), 380
 Ostrea, 378
eximia, *Megapyga*, 452
expansa, *Cassida* (*Taiwania*), 492
 Taiwania, 488
expressa, *Cassida* (*Taiwania*), 493
 Metriona, 493
 Taiwania, 489
Fabricii, *Excavata*, 378
falcata, *Oxytropis*, 285
falcatus, *Aragallus*, 285, 287
Falco sparverius, 4
fallax, *Oxytropis Besseyi*, 230, 231, 235,
 237
familiaris, *Certhia*, 8
farallonensis, *Liotia*, 385, 386, 387, 396
fasciatus, *Metynnis*, 48
 Picoides tridactylus, 6
femoratis, *Collops*, 86
fenestrata, *Cassida*, 520
 Liotia, 386
Filago, 546
flicina, *Bryopteris*, 595, 597

- Jungermannia*, 597
tenuis, *Jungermannia*, 597
filiformis, *Jungermannia*, 608
Omphalanthus, 595, 597, 599, 601, 602, 608
fimbria, *Anoplopoma*, 419, 429
Gadus, 419
Fimbriaria californica, 594
palmeri, 595
fladnizensis, *Draba*, 197
flava, *Jungermannia*, 604
Lejeunea, 604
flaveola, *Aspidomorpha miliaris*, 466
flaveolata, *Setodes*, 73
flavicinctus, *Collops*, 79, 130
flavida, *Oecetina*, 73
flavidus, *Sebastodes*, 414, 415, 418
flavilabris, *Anthocomus*, 130
flexuosa, *Marilia*, 66, 71
flavicola, *Anthocomus*, 130
floridana, *Oecetina*, 73
floridanus, *Collops*, 130
flos, *Balanus*, 385
foetida, *Oxytropis*, 239
foliolosa, *Oxytropis*, 179, 182, 194, 195, 197, 199
Oxytropis deflexa, 196, 197, 198, 201
foliolosus, *Astragalus*, 197
Astragalus deflexus, 197
Follett, W. I., Annotated List of Fishes Obtained by the California Academy of Sciences During Six Cruises of the U.S.S. Mulberry Conducted by the United States Navy off Central California in 1949 and 1950, 399-432.
foraminatus, *Echidnocerus*, 395
Lopholithodes, 395
Foraminifera of the Genus *Discorbis* Dredged off the Coast of California, A New Species of, by Clifford C. Church, 375-376.
formosae immaculatipennis, *Thlaspida*, 476
Thlaspida, 474, 476
formosana, *Callicarpa*, 476
Cassida lineola, 511
Liquidambar, 456
formosus, *Aragallus*, 285, 287
fornicata, *Volsella*, 384
fortuitous, *Perus atricapillus*, 7
Fortunella margarita, 538
Fossombronia hispidissima, 601
foveiventris, *Attalus*, 97
fraterna, *Aspidomorpha*, 467
frontalis, *Hymenodora*, 394
frosti, *Attalus*, 97, 102, 131
Frullania aculeata, 597, 601
arecae, 597, 602
arietina, 603
asagrayana californica, 602
atrata, 597, 602, 604, 607, 608, 609
atrosanguinea, 602
brasiliensis, 602
californica, 602
catalinae, 602
cocosensis, 599, 602, 607
eucullata, 603, 604, 606, 608, 610
decipiens, 611
eboracensis, 603, 608
galapagona, 611
gymnotis, 603
hians, 602
inflata, 603
riojaneirensis, 599, 602, 603, 607
riparia, 603
squarrosa, 603
tamarisci, 611
vaginata, 611
Frullanioides densifolia, 595, 596, 597, *riojaneirensis*, 603
Fulicaria, 546
fulva, *Prioptera angusta*, 456
fumida, *Hopliomota*, 447
Notosacantha, 445, 447, 450, 568
furcata, *Aspidomorpha*, 461, 463, 465, 528, 529, 530, 534, 535, 537, 540, 542, 576, 578, 586
Cassida, 463
fuscopunctata, *Aspidomorpha*, 461, 464
fuscorufa, *Cassida*, 506, 507, 519
Cassida (*Cassida*), 507
fuscus, *Anisocentropus*, 71
Fusinus, 385
futilis, *Attalus*, 97, 104, 105, 131
Gadus fimbria, 419
galapagensis, *Notothylas*, 612
galapagona, *Brachiolejeunea*, 611
Bryopteris, 597
Frullania, 611
Marchesia, 612
Peltolejeunea, 612
Radula, 612
Galeopsis, 523, 546
Galeorhinus zygopterus, 406
Galerucinae, 438, 439, 552
galioides, *Aragallus*, 300, 301, 302

- gambeli*, *grinnelli*, *Parus*, 8
gambelii, *Zonotrichia leucophrys*, 12
gambensis, *Astragalus*, 240
 Oxytropis, 240, 241, 242, 243
Gastropoda, 384
Gennadas borealis, 393
Gentianales, 545, 546
genuina, *Oxytropis nigrescens*, 207
Geology of the Continental Slope off Central California, by G Dallas Hanna, 525-558
gibbula, *Cassida*, 481
gigas, *Ostrea*, 154
gilyus, *Vireo*, 10
glabrata, *Oxytropis*, 258, 293, 295
 Oxytropis campestris, 258, 293, 294, 295
glabrellus, *Attalus*, 96, 101, 104, 131
glauca, *Oxyrhina*, 406
 Prionace, 406
Glaucidium gnoma, 5
glaucus, *Isurus*, 400, 406
Gloeocephala, 184, 238, 252
gloriosum, *Callistoma*, 385
Glycymeris subobsoleta, 384
Glyphocassis, 444, 477, 478, 553, 561
 lepida, 478, 572
 spilota, 478, 479
 tetrasticta, 478
 trilineata, 442, 479, 480
 trilineata szechuana, 478, 480, 570
Glyptocephalus pacificus, 413
Gmelina, 547
 arborea, 452, 466
Gnaphalium, 546, 548
gnoma, *Glaucidium*, 5
goeldii, *Metynnis*, 50, 51
goliath, *Lima* (*Acesta*), 380
 yagenensis, *Lima* (*Acesta*), 380
Gooddingii, *Hamosa*, 181
Goodwin, Delbert C., Some Decapod Crustacea Dredged off the Coast of Central California, 393-397
Gosline, William A., Notes on the Characid Fishes of the Subfamily *Serrasalminae*, 17-64
gracilis, *Astragalus*, 255
 Oxytropis, 254, 255, 257, 258, 259, 260, 295
 Oxytropis campestris, 188, 241, 244, 250, 253, 254, 255, 258, 259, 260, 261, 262, 263, 265, 278, 279, 288
 Sorbus, 503
Gramineae, 562
grandidentata, *Brachiolejeunea*, 595, 596, 597, 602, 608, 610, 614
grandiflora, *Metzgeria*, 607
granellus, *Collops*, 130
Grant, Norman, see Groody, Tom
granularis, *Attalus*, 96, 104
Gratiana, 545
Grayanus, *Astragalus*, 256, 261
greeni, *Attalus*, 97, 101, 102, 116, 131
Gressitt, J. Linsley, The Tortoise Beetles of China (*Chrysomelidae: Cassidinae*), 433-592
grinnelli, *Parus gambeli*, 8
grisellus, *Attalus*, 97, 104, 105, 116, 131
griseolum, *Sericostoma*, 74
Groody, Tom, Anatole Loukashkin, and Norman Grant, A Preliminary Report on the Behavior of the Pacific Sardine (*Sardinops caerulea*) in an Electrical Field, 311-323
Gryphaea, 136
 angulata, 134
guaporensis, *Metynnis*, 47
guerini, *Aspidomorpha australasiae*, 535
gurupensis, *Myleus*, 20, 31, 37, 42
guttata guttata, *Hylocichla*, 9
 Hylocichla guttata, 9
gymnotis, *Frullania*, 603
hablitziae, *Cassida*, 485
Haliaeetus leucocephalus, 4
haliaetus, *Pandion*, 4
Hallii, *Astragalus*, 204
 Oxytropis, 204, 205, 206
Halticinae, 438, 439, 552
hamlini, *Lima*, 379
 Lima (*Acesta*), 379
Hamosa Gooddingii, 181
Hanna, G Dallas, Geology of the Continental Slope off Central California, 325-358
 Also see Smith, A. G.
heathi, *Japetella*, 357
Hebdomecosta, 477, 478
 lepida, 478
 reitteri, 477, 479
 spilota, 479
Hedybius, 94
heinrothi, *Metynnis*, 52
Helcogaster, 129
 atratus, 129
 pectinatus, 129
Helianthus, 546

- Helichrysum*, 546, 548
Helicopsyche, 75
 annulicornis, 74
 borealis, 65, 74
 californica, 74
Helicopsychidae, 74
Hemilepidotus hemilepidotus, 421
 spinosus, 400, 420, 421, 431, 432
hemilepidotus, *Hemilepidotus*, 421
Hemisphaerota, 544
Hepaticae from the Galapagos, Cocos and Other Pacific Coast Islands, Some, by Lois Clark, 593-624
herniarius, *Myletes*, 48
Heroina, *Aspidomorpha*, 467
Hertlein, Leo George, Description of a New Pelecypod of the Genus *Lima* from Deep Water off Central California, 377-381
Hesperiphona vespertina brooksi, 11
Heteroscyminoides, 162, 164, 165
Heteroscymnus, 163, 164
 longus, 162
Hexagrammidae, 419
Hexagrammos decagrammus, 400, 419, 430
hians, *Frullania*, 602
Hieracium, 546
Himatidium, 560
Hinnites multirugosus, 384
hirtellus, *Collops*, 130
hispidissima, *Fossombronina*, 601
Hispinæ, 438, 439, 550, 552, 560, 561, 562
histrion, *Collops*, 79, 130
histrionicus, *Collops*, 85
Homalopoma carpenteri, 385
Hookeri, *Oxytropis*, 289
Hookeriana, *Oxytropis*, 285, 289
Hoplionota, 444
 arisana, 445
 castanea, 446
 centinodia, 446
 fumida, 447
 marginalis, 447
 oblongopunctata, 448
 Sauteri, 449
Hoplionotites, 444
horni, *Anthocomus*, 130
horrida, *Notosacantha*, 451
hospita, *Laceoptera*, 470
 Sindiola, 469, 568
howellii, *Riccia*, 612
Hubbs, Carl L., and J. L. McHugh, Relationships of the Pelagic Shark *Euprotomus* *bispinatus*, with Description of a Specimen from off California, 159, 176
hudsonica, *Oxytropis*, 245, 246
 Oxytropis viscida, 190, 239, 240, 243, 245, 297, 306
hudsonicus *Aragallus*, 245, 246
humeralis, *Attalus*, 98, 107, 108, 109, 131
hyalinus, *Euprotomus*, 160, 161, 171
Hydrolagus collieri, 407
Hydropsyche philo, 66, 70
Hydropsychidae, 70
Hydrolejeunea ocellata, 611
Hylatomus pileatus pleinus, 6
Hylocichli guttata guttata, 9
 ustulata almae, 9
Hymenodora frontalis, 394
hyperarctica, *Oxytropis arctobia*, 209
 Oxytropis nigrescens, 210, 211
hyperborea, *Oxytropis*, 253, 254
Hypocassida, 444, 545
 subferruginea, 541
Hypomesus pretiosus, 400, 408, 428
hypophylla, *Targionia*, 595, 611
hypsaeuchen, *Metynnis*, 20, 47, 48, 49, 50
 Myletes, 48
Hyptis, 546
Ichthyoborinae, 24
Idaho, Observations on the Birds of Northeastern, by Robert T. Orr, 1-16
idahoensis, *Chimarra*, 67
iliaca schistacea, *Passerella*, 13
illinoisensis, *Attalus*, 97, 102, 116
Imatidium leyanum, 451
imitatrix, *Cassida*, 495
imitatrix, *Cassida* (*Taiwania*), 498, 574
 Taiwania, 488
immaculatipennis, *Thlaspidia formosae*, 476
impressus, *Trophimus*, 130
incerta, *Oecetis*, 73
incertus, *Leptocerus*, 73
incisa, *Amphissa versicolor*, 385
includens, *Oxytropis*, 185
inconspicua, *Oecetis*, 65, 73
inconspicuus, *Leptocerus*, 73
indica, *Aspidomorpha*, 461, 465
inflata, *Cassida* (*Odontionycha*), 521, 574
inflata, *Frullania*, 603
 Odontionycha, 521
 Oxytropis, 203
 Oxytropis arctica, 203, 204, 206
 Spiesia, 203
inflatus, *Aragallus*, 235

- Astragalus*, 203
infuscatus, Attalus, 121
inornata, Oecetina, 73
insculptus, Nassarius, 385
insulana, Calopepla leayana, 451
insulana, Cassida (Taiwania), 495, 574
insulana, Craspedonta leayana, 451, 536, 541, 543
 Taiwania, 489
insularis, Aspidomorpha, 467
insulatus, Collops, 130
interfossa atropurpurea, Ocenebra, 385
intermedius, Astragalus, 291
Inula, 546
inundata, Aspidomorpha miliaris, 466
invenustus, Aragallus, 272
involuta, Oxytropis, 285
involutus, Aragallus, 285, 287
iodocheila, Riccia, 612
Ipomoea, 462, 463, 465, 467, 528, 542, 547
 aquatica, 464, 490
 Batatas, 464, 466, 472, 476, 490, 528
 cairica, 464, 490, 528
 digitata, 464, 490, 528
 palmata, 490
 pes-caprae, 466
 purpurea, 472
 triloba, 466
iranda, Rhyacophilla, 66
Ischyronota, 444, 481, 544, 553, 561
 conicicollis, 481
 desertorum, 481, 482
 desertorum basimargo, 482
Ischyronyx, 545
Isistius, 162, 163, 164, 165
Isurus glaucus, 400, 406
ixodes ecaudata, Oxytropis, 241, 243
 Oxytropis, 240, 242, 243, 245
Ixoreus naevius meruloides, 9
jackii, Peltolejeunea, 608
jacobsoni, Cassida, 506, 508, 511, 519
 Cassida (*Cassida*), 508, 572
Jakowlewii, Cassida, 482
jamaicensis, Buteo, 4
japana, Cassida, 505, 508, 539
 Cassida (*Cassida*), 508, 539, 540, 542, 544, 580
 Cassida piperata, 509
Japetella heathi, 357
japonica, Aspidomorpha difformis, 462
 Callicarpa, 476
 Calystegia sepium, 462
 Thlaspidia, 474, 475
 Thlaspidia biramosa, 474, 475
japonicus, Convolvulus, 465
johannensis, Aragallus, 267
 Astragalus campestris, 267
 bicensis, Oxytropis, 267
 bicensis, Oxytropis campestris, 186
 Oxytropis, 186, 249, 268
 Oxytropis campestris, 251, 253, 265, 267, 268, 269, 288
Jonesii, Oxytropis, 185, 191, 213, 215, 216, 217, 222
Jonthonota, 545
juglans, Cassida, 496
 Cassida (*Taiwania*), 496
 Taiwania, 489
Junco oregonus montanus, 12
Jungermannia arecae, 602
 asplenoides, 609
 auriculata, 607
 bidentata, 605
 brachiata, 607
 bursata, 609
 convexistipa, 601
 flicina, 597
 flicina tenuis, 597
 filiformis, 608
 flava, 604
 martiana, 609
 navicularis, 609
 opacula, 607
 oppositifolia, 610
 pterogonia, 611
 squarrosa, 604
 transversalis, 610
 ulicina, 608
 xanthocarpa, 605
juno, Cassida, 496
 Cassida (*Taiwania*), 496
 Taiwania, 488
klapperichi, Cassida, 505, 509
 Cassida (*Cassida*), 509, 572
knerii, Myleus, 30, 36, 38
Knowltonii, Aragallus, 291, 292
knuthi, Collops, 84
kokrinensis, Oxytropis, 185, 190, 202, 211, 212
Korringa, P., On the Nature and Function of the "Chalky" Deposits in the Shell of *Ostrea edulis* Linnaeus, 133-158
Kraatzii, Cassida, 520
labiatae, 545, 546, 547, 548
labilis, Cassida, 515
Lacoptera, 443, 469, 470, 471, 545, 553, 560

- Bohemani, 471
 chinensis, 471
 excavata, 470
 hospita, 470
 quadrimaculata, 471, 472, 537, 540,
 541, 543, 584, 586
 quadrimaculata Bohemani, 471, 472
 Thunbergi, 471
 tredecimpunctata, 471, 472
 virgintisexnotata puncticolle, 470
 yunnanica, 471, 473
 laetevirens, Lejeunea, 608
 Microlejeunea, 608
 Lagopus, Aragallus, 224
 atropurpurea, Oxytropis, 185, 188,
 215, 221, 224, 226, 227, 228, 238,
 260, 304
 conjugans, Oxytropis, 221, 224, 225,
 226, 227
 Lagopus, Oxytropis, 221, 224, 225, 226,
 227, 228
 Oxytropis, 179, 184, 185, 187, 191, 192,
 222, 223, 224, 225, 226, 228, 229,
 232, 282
 Oxytropis Lagopus, 221, 224, 225, 226,
 227, 228
 Spiesia, 224
 laguna, Chimarra, 66, 68, 69
 Lambertii, Aragallus, 283, 285
 articulata, Oxytropis, 284, 286, 288,
 289, 290, 293
 Astragalus, 285
 Bigelovii, Astragalus, 291
 Bigelovii, Oxytropis, 233, 261, 275,
 284, 286, 289, 290, 291, 292, 293, 305
 canadensis, Oxytropis, 305
 Lambertii, Oxytropis, 284, 285, 286,
 287, 289, 290, 292, 293, 305
 leucophylla, Oxytropis, 304
 lilacina, Oxytropis, 272, 275
 mixta, Oxytropis, 285, 289
 ochroleuca, Oxytropis, 272, 275
 ochroleucus, Aragallus, 274
 Oxytropis, 178, 182, 184, 185, 186, 188,
 191, 225, 229, 232, 233, 244, 255,
 256, 259, 263, 264, 267, 271, 274,
 275, 279, 281, 282, 283, 284, 285,
 288, 289, 290, 292, 293, 304, 305
 Oxytropis Lambertii, 284, 285, 286,
 287, 289, 290, 292, 293, 305
 pannosa, Oxytropis, 305
 sericea, Oxytropis, 272
 sericea, Spiesia, 272
 sericeus, Aragallus, 272
 Spiesia, 285
 vivida, Oxytropis, 304, 305
 Lamiales, 546, 547
 Lamnidae, 406
 Lampanyctus leucopsarus, 412
 micropunctatus, 412
 regalis, 412
 ritteri, 412
 Lamprosominae, 438, 440, 552
 Lappa, 546
 lapponica, Oxytropis, 199
 laquei, Discorbis, 375, 396
 Laqueus, 376
 californianus, 376
 Lariidae, 437, 438
 Lasiocassis, 484, 485, 557, 561
 vespertina, Cassida, 486
 laticaudus, Squaliolus, 162, 171
 laticollis, Cassida, 506
 laticollis, Cassida (Cassida), 510, 574
 latus, Myletes, 40
 Myleus, 31, 37, 40
 Myloplus, 40
 Tetragonopterus, 40
 leayana, Craspedonta, 540
 insulana, Calopepla, 451
 insulana, Craspedonta, 451, 536, 541,
 543
 leayanum, Imatidium, 451
 lecontei, Attalus, 97, 101, 103, 104, 105, 131
 lehmanniana, Caudalejeunea, 597
 Lejeunea, 597
 Lejeunea axillaris, 601
 bullata, 607
 cladogyna, 603, 604, 609
 decidua, 599
 duriuscula, 601
 flava, 604
 laetevirens, 608
 lehmanniana, 597
 maritima, 598
 muelleriana, 607
 pilloba, 610
 pogonoptera, 610
 setiloba, 598, 600, 603, 604
 spinosa, 599
 trifaria, 601
 vincentia, 610
 lenis, Cassida (Tylocentra), 526
 Tylocentra, 525
 lepida, Coptocycla, 478
 Glyphocassis, 478, 572

- Hebdomecosta*, 478
Lepidopsetta bilineata, 413
Lepidostoma rhino, 66, 75
Lepidostomatidae, 75
Leptocella, 74
 texana, 74
Leptoceridae, 73
Leptocerus incertus, 73
 inconspicuus, 73
leucantha, *Oxytropis*, 239, 246, 247, 248, 249, 260
 Spiesia, 246
leucanthus, *Aragallus*, 246
 Astragalus, 246, 248
leucocephalus, *Haliaeetus*, 4
Leucolejeunea xanthocarpa, 599, 601, 603, 604
leucophrys gambelii, *Zonotrichia*, 12
 leucophrys, *Zonotrichia*, 12
 Zonotrichia leucophrys, 12
leucophylla, *Oxytropis Lambertii*, 304
leucopsarus, *Lampanyctus*, 412
leucurus, *Dendrocopos pubescens*, 6
Leuroglossus stilbius, 408
levis, *Myiopus*, 31, 33, 42
 Myiopus, 31, 33, 42
lewisi, *Thlaspidia*, 474, 477, 570
Lewisii, *Coptocycla*, 477
lilacina, *Oxytropis Lambertii*, 272, 275
Lima, 377, 378, 380
 (*Acesta*) *agassizii*, 379
 (*Acesta*) *diomedae*, 379
 (*Acesta*) *excavata*, 380
 (*Acesta*) *goliath*, 380
 (*Acesta*) *goliath yagenensis*, 380
 (*Acesta*) *hamlini*, 379
 (*Acesta*) *mori*, 379, 380, 396
 (*Acesta*) *patagonica*, 380
 alba, 378
 (*Callolima*) *rathbuni*, 378
 diomedae, 379
 hamlini, 379
 mori, 378, 379
lima, *Ostrea*, 378
Lima (*Plagiostoma*) *oregonensis*, 379
 robertsae, 379
 twinensis, 380
limbellus, *Collops*, 130
limbipennis, *Aspidomorpha*, 467
Limidae, 378
limonia, *Citrus*, 537
limonis, *Attalus*, 127
lineola, *Cassida*, 505, 509, 511
 Cassida (*Cassida*), 511, 572
 formosana, *Cassida*, 511
 nigrostrigata, *Cassida*, 511
 rossica, *Cassida*, 511
 sibirica, *Cassida*, 511
lingulata, *Crepidatella*, 385
Liotia, 385, 386, 387
 californica, 386, 387
 cancellata, 386
 c-d-adamsi, 386
 farallonensis, 385, 386, 387, 396
 fenestrata, 386
 pacis, 387
Liquidambar formosana, 456
Liparididae, 421
lippencottianus, *Myletes*, 50
 Metynnis, 47, 50, 51, 52, 53, 54
 Myletes, 50
 Sealeina, 50
Lithophaga, 346
lobata, *Aspidomorpha*, 467
lobata, *Ceratolejeunea*, 597, 598, 616
lobatus, *Myletes*, 31, 41
lobulatus, *Attalus*, 99, 100, 104, 118, 119, 120, 126, 131
Lomatium minimum, 217
longipes, *Chorilia*, 395
longus, *Heteroscymnus*, 162
Lophocolea bidentata, 605
Lopholejeunea anderssonii, 611
 cocosensis, 598, 603, 604, 605, 609, 610, 620, 622
 muelleriana, 607, 609
 sagraeana, 606
Lopholithodes foraminatus, 395
Lophozia opacula, 607
Lordiconia, 545
Loukashkin, *Anatole*, see *Groody*, Tom
Lower California, *The Trichoptera* of, by Herbert H. Ross, 65-75
Loxia curvirostra bendirei, 12
ludoviciana, *Piranga*, 11
luna, *Metynnis*, 47, 49, 50
Lunelliana, *Oxytropis*, 280
lurida aspera, *Ocenebra*, 385
 Ostrea, 154
luteola, *Oxytropis*, 243, 256, 257, 258
 Oxytropis campestris, 250
luteolus, *Aragallus*, 256, 257, 259, 262
luzonica, *Coptocycla*, 490
Lychnis, 545
Lycopersicum, 546
Lycopus, 523, 546

- Macoma*, 337
macouni, *Chauliodus*, 400, 410
Macounii, *Aragallus*, 256, 257, 271, 277
 279
 Oxytropis, 259, 277
Macrolejeunea subsimplex, 611
macropus, *Tactostoma*, 400, 409
maculata, *Cassida*, 513
maculatus, *Metynnis*, 46, 47, 50, 51, 52, 53, 54
 Myletes, 52
 Myleus, 31, 37, 41, 42
 Tomète, 41, 42
maculipennis reducta, *Basiprionota*, 455, 458, 541, 568
 reducta, *Prioptera*, 458
majusculus, *Aragallus*, 272, 274, 275, 276
Malachiidae, *Studies in the*, by M. Y. Marshall, 77-132
Malachius, 87, 88
 aeneus, 87, 130
maliger, *Sebastodes*, 418
Malus, 503
Malvales, 546
mandli, *Cassida*, 506
 Cassida (*Cassida*), 512, 572
mandschukoensis, *Cassida spaethi*, 520
Mantodea, 526
Marchantia chenopoda, 612
Marchesinia brachiata, 602, 607
 galapagona, 612
 nigrescens, 612
margarita, *Fortunella*, 538
margaritaceae, *Cassida* (*Mionycha*), 548
Margarites salmonea, 385
marginalis, *Hoplionota*, 447
 Notosacantha, 445, 447, 568
marginata, *Epistichia*, 453
marginicollis, *Collops*, 81, 82, 130
marginipennis, *Attalus*, 98, 100
Marilia, 71
 flexuosa, 66, 71
 nobsca, 66, 71
maritima, *Ceratolejeunea*, 598, 604, 605, 609
 Lejeunea, 598
marmoratus, *Scorpaenichthys*, 420
Marshall, M. Y., *Studies in the Malachiidae*, III, 77-132
martiana, *Jungermannia*, 609
 Plagiochila, 608, 609
Mastigobryum teretiusculum, 595
Mastigolejeuna auriculata, 607
Matricaria, 546
mauryana, *Riccia*, 612
maxima, *Citrus*, 537
maxonii, *Rectolejeunea*, 597, 610
Maydelliana, *Oxytropis*, 185, 189, 191, 255, 258, 293, 294, 295, 298, 299
Mazama, *Astragalus*, 256
 Oxytropis, 256, 257, 258, 259
 Oxytropis campestris, 251
McHugh, J. L., see *Hubbs, Carl L.*
Megaceryle alcyon, 5
Megalopodinae, 438, 439, 552
Megapyga, 443, 452, 551, 561
 chinensis, 452
 coeruleomaculata, 452
 eximia, 452
Megascelinae, 438, 440, 552
melaena, *Ogilocassida*, 560
melanocephala, *Oxytropis campestris*, 240, 293, 295
melanodontus, *Aragallus*, 277, 279
melanopterus, *Attalus*, 96, 101
melanostictus, *Psettichthys*, 413
Melanostomiatidae, 409
Melissa, 546
melodia, *Melospiza*, 13
Melospiza melodia, 13
mendicus cooperi, *Nassarius*, 385
 Nassarius, 385
Mentha, 523, 546
mento, *Catoprion*, 20, 22, 28, 54
merganser, *Mergus*, 3
Mergus merganser, 3
Merlucciidae, 413
Merluccius productus, 413
Mertensiana, 183
 Oxytropis, 185, 190, 201, 202, 203
 Spiesia, 201
Mertensianus, *Astragalus*, 201
meruloides, *Ixoreus naevius*, 9
Metcalfei, *Aragallus*, 291, 292
Mettriona, 484, 486, 487, 498, 545, 547
 amurensis, 489
 circumdata, 490
 circumdata pescadorensis, 490
 eo, 491
 expressa, 493
 objecta, 498
 plausibilis, 498
 purpuricollis, 498
 rati, 500
 sigillata, 501
 spilota, 479

- Thais, 503
 thais crucifera, 503
 versicolor, 503
 versicularis, 442
 Metynnis, 18, 19, 24, 25, 26, 27, 45, 46, 47, 48, 49, 53
 altidorsalis, 52
 anisurus, 51
 argenteus, 20, 47, 50, 51, 52, 53, 54
 calichromus, 48
 calichromus schreitmülleri, 48
 ehrharti, 48
 eigenmanni, 51
 fasciatus, 48
 goeldii, 50, 51
 guaporensis, 47
 heinrothi, 52
 hypsauchen, 20, 47, 48, 49, 50
 lippincottianus, 47, 50, 51, 52, 53, 54
 luna, 47, 49, 50
 maculatus, 46, 47, 50, 51, 52, 53, 54
 mola, 47, 50, 51, 52, 53
 orbicularis, 50
 otuquensis, 50
 roosevelti, 50, 51, 52
 schreitmülleri, 48
 seitzi, 46, 50
 snethlageae, 52
 Metzgeria grandiflora, 607
 mexicana, Notiomyia, 72
 mexicanus, Cinelus, 8
 mexicanus, Sphinginus, 128
 micans, Aspidomorpha, 463
 Cassida, 463
 Myletes, 37
 Myleus, 30, 36, 37, 38
 Myloplus, 37
 Oxytropis, 302
 Setodes, 73
 Michelia, 467
 mickeli, Cheumatopsyche, 66, 71
 Microlejeunea bullata, 607
 laetevirens, 608
 ulicina, 607, 608, 609
 Microlipus, 87
 micropunctatus, Lampanycetus, 412
 Microstomus, pacificus, 413
 migratorius, Turdus, 9
 Mikania, 546
 miliaris, Aspidomorpha, 461, 465, 466, 535, 540, 542, 543, 570, 586
 Cassida, 460, 465, 472
 flaveola, Aspidomorpha, 466
 inundata, Aspidomorpha, 466
 millefolium, Achillea, 516, 520
 mimus, Tanaops, 86, 87, 130
 miniatus, Rosicola, 416
 Sebastodes, 414, 416, 418
 minima, Townsendia, 217
 minimum, Lomatium, 217
 minor, Aragallus, 219
 Aragallus multiceps, 219
 Astragalus bisontum, 219
 Chordeiles, 5
 Oxytropis, 219
 Oxytropis multiceps, 215, 217, 219, 220, 221, 222
 Oxytropis uralensis, 266, 267, 306
 Silene Pertesonii, 217
 minutissima, Cololejeunea, 600, 622
 minutus, Attalus, 100
 Mionycha, 484, 485, 503, 544, 545, 547, 557
 (Mionycha) concha, Cassida, 504
 margaritacea, Cassida, 548
 morawitzii, Cassida, 514
 miquelii, Calypogeia, 595, 599, 611
 mirandus, Anthocomus, 130
 mitra, Acmaea, 384
 Mitra montereyi, 385
 mitrei, Colossoma, 27
 Mitrella tuberosa, 385
 mixta, Oxytropis Lambertii, 285, 289
 mixtus, Anthocomus, 88, 130
 moerens, Anthocomus, 130
 mola, Metynnis, 47, 50, 51, 52, 53
 Mola mola, 422
 mola, Mola, 422
 Molidae, 422
 mollis, Oxytropis, 240
 mollissimus, Astragalus, 182
 Monarda, 546
 mongolica, Cassida, 506, 513
 Cassida (Cassida), 513
 montana, Oxytropis, 178
 montanus, Anthocomus, 130
 Astragalus, 178
 Junco oreganus, 12
 montereyensis, Seila, 385
 montereyi, Mitra, 385
 monticola, Aragallus, 255
 Astragalus, 256
 Dendrocopus villosus, 6
 Oxytropis, 229, 241, 249, 255, 257, 259, 260, 261
 Spiesia, 255
 moori, Cassida, 442

- morawitzi, *Cassida* (*Mionycha*), 514
 Cassida pallidicollis, 514
 mordax, *Engraulis*, 316
 Engraulis mordax, 407
 mordax, *Engraulis*, 407
 mori, Lima, 378, 379
 mori Lima (*Acesta*), 379, 380, 396
 morulus, *Attalus*, 97, 101, 102, 105, 131
 smithi, *Attalus*, 97, 101, 102, 131
 muelleriana, *Lejeunea*, 607
 Lopholejeunea, 607, 609
 multiceps, *Aragallus*, 219
 minor, *Aragallus*, 219
 minor, *Oxytropis*, 215, 217, 219, 220, 221
 Oxytropis, 182, 184, 185, 191, 217, 219, 221, 222, 281
 Physocalyx, 219, 222
 Spiesia, 219
 multipunctata, *Basiprionota*, 455, 459
 Photonectops, 410
 Prioptera, 459
 multirugosus, *Hinnites*, 384
 Munida quadrispina, 395
 Munidopsis verrilli, 395
 Munzii, *Astragalus*, 212, 215
 Myadestes townsendi, 10
 Mycetophoridae, 410
 Mycetophum californiense, 400, 411
 Myleinae, 17
 Mylesinae, 17
 Mylesininae, 18
 Mylesinus, 19, 23, 25, 26, 28
 schomburgkii, 20, 22, 29, 59
 Myletes altipinnis, 38
 asterias, 41
 discoideus, 31, 40
 divaricatus, 30, 38, 39, 40
 doidyxodon, 30, 38
 ellipticus, 31, 41
 herniarius, 48
 hypsauchen, 48
 latus, 40
 lippencottianus, 50
 lippencottianus, 50
 lobatus, 31, 41
 maculatus, 52
 micans, 37
 orinocensis, 48
 paco, 39
 pacu, 39
 palometa, 30, 40
 parma, 31, 40
 rhomboidalis, 40
 rubripinnis, 40
 schomburgkii, 40
 tieté, 42
 torquatus, 39
 Myleus, 18, 19, 24, 25, 26, 28, 32, 33, 34
 altipinnis, 30, 36, 37, 38
 asterias, 31, 37, 40, 41
 gurupyensis, 20, 31, 37, 42
 knerii, 30, 36, 38
 latus, 31, 37, 40
 levis, 31, 33, 42
 maculatus, 31, 37, 41, 42
 micans, 30, 36, 37, 38
 pacu, 30, 33, 35, 36, 38, 39, 41
 rhomboidalis, 22, 30, 37, 39, 40
 rubripinnis, 31, 37, 40
 schomburgkii, 30, 36, 40
 setiger, 20, 28, 30, 33, 34, 35, 36, 38, 39
 tieté, 31, 37, 42, 43
 ternetzi, 30, 36, 39
 torquatus, 30, 36, 39
 Mylinae, 18
 Myloplus, 19, 32, 33
 arnoldi, 42
 asterias, 41
 latus, 40
 levis, 31, 33, 42
 micans, 37
 rhomboidalis, 40
 rubripinnis, 40
 schomburgkii, 40
 schulzei, 31, 41
 Mylossoma, 18, 25, 26, 27, 50
 argenteum, 27
 aureum, 20
 duriventre, 27, 28
 myriocarpa, *Cololejeunea*, 600, 622
 Mysidoptera (*Pseudacesta*) dieneri, 378
 Mytilus californianus, 142, 345
 naevius meruloides, *Ixoreus*, 9
 nana, *Oxytropis*, 184, 185, 191, 226, 231
 233, 234, 274, 279, 281, 282
 Spiesia, 279
 Nani, 184, 223
 nanus, *Aragallus*, 279
 Nassarius californianus, 385
 insculptus, 385
 mendicus, 385
 mendicus cooperi, 385
 nattereri, *Serrasalmus*, 20, 28
 Nautilus, 154
 navicula, *Cassida*, 524

- navicularis, *Jungermannia*, 609
 Porella, 609
 nebulosa, *Cassida*, 484, 504, 505, 513
 Cassida (*Cassida*), 513, 540, 542, 543
 nebulosus, *Sebastes*, 418
 Sebastodes, 418
 Nebraspis, 545
 necopinus, *Collops*, 130
 Nectoliparis pelagicus, 400, 421
 neglectus, *Tanaops*, 116, 121
 Nelsonii, *Oxytropis splendens*, 300
 nematodes, *Cephalozia*, 611
 Telaranea, 611
 Neocopelarchoides dentatus, 400, 412
 Neomphalia, 545
 Nepeta, 546
 New Species of Foraminifera of the Genus
 Discorbis Dredged off the Coast of California, A, by Clifford C. Church, 375-376
 nigra, *Cassida*, 513
 nigrella, *Riccia*, 612
 nigrellus, *Attalus*, 95
 nigrescens *arctobia*, *Astragalus*, 209
 arctobia, *Oxytropis*, 209
 Astragalus, 207, 208, 209
 bryophila, *Oxytropis*, 207, 208
 genuina, *Oxytropis*, 207
 hyperarctica, *Oxytropis*, 210, 211
 Marchesinia, 612
 nigrescens, *Oxytropis*, 202, 205, 207, 211
 Oxytropis, 183, 185, 191, 203, 205, 206, 207, 208, 209, 210, 212
 Oxytropis nigrescens, 202, 205, 207, 211
 pygmaea, *Oxytropis*, 207, 209
 Spiesia, 207
 uniflora, *Oxytropis*, 202, 206, 207, 209, 211, 298
 nigrescenti, *Oxytropis*, 210
 nigricauda, *Crago*, 395
 Crago, 395
 nigriceps, *Collops*, 130
 nigripes, *Attalus*, 96, 97, 105, 131
 nigripinne, *Colossoma*, 20
 nigripinnis, *Colossoma*, 23
 nigrinus, *Anthocomus*, 91
 nigriventris, *Cassida*, 442
 nigroguttata, *Cassida*, 511
 nigrostrigata, *Cassida*, 511
 Cassida lineola, 511
 nobilis, *Cassida* (*Cassidula*), 442
 Citrus, 537
 nobsca, *Marilia*, 66, 71
 Nodopus, 92, 93, 94
 caviceps, 92, 93
 normani, *Acnodon*, 19, 20, 28, 43, 44, 45, 61
 notabilis, *Oxytropis arctica*, 209
 Notes on the Characid Fishes of the Subfamily Serrasalminae, by William A. Gosline, 17-64
 nothoxys, *Astragalus*, 181, 305
 Oxytropis, 305
 Notidobia borealis, 74
 Notiomyia mexicana, 72
 ornata, 72
 sagittosa, 66, 72
 Notosacantha, 443, 444, 445, 551, 560, 561, 562
 arisana, 445
 castanea, 445, 446
 centinodia, 445, 446
 fumida, 445, 447, 450, 568
 horrifica, 451
 marginalis, 445, 447, 568
 oblongopunctata, 445, 448, 574
 sauteri, 445, 449
 sinica, 445, 449, 574
 trituberculata, 445, 450, 574
 Notosacanthina, 444
 Notothylas galapagensis, 512
 nubilis, *Balanus*, 385
 nuchalis, *Sphyrapius varius*, 6
 Nucifraga columbiana, 7
 nucula, *Cassida*, 505, 514
 Cassida (*Cassida*), 514
 nugator, *Chirolophis*, 422
 Nuttallina californica, 385
 Nuttallornis borealis, 7
 oblitus, *Pseudebaeus*, 92
 obnapiformis, *Oxytropis*, 180, 184, 185, 192, 231, 235, 236, 237
 obscura, *Sternoptyx*, 409
 obscurus richardsonii, *Dendragapus*, 4
 obtusata, *Cassida*, 494, 497, 538, 539
 Cassida (*Taiwania*), 497, 537, 540, 542, 544, 582
 Taiwania, 488
 objecta, *Metriorhiza*, 498
 oblongopunctata, *Hoplionota*, 448
 Notosacantha, 445, 448, 574
 obsoleta, *Cassida*, 507
 ocellata, *Hygrolejeunea*, 611
 Ocenebra interfossa atropurpurea, 385
 lurida aspera, 385

- ochroleuca, *Oxytropis Lambertii*, 272, 275
 ochroleucus, *Aragallus Lambertii*, 274
 oetopunctata, *Cassida*, 455
 oculus, *Colossoma*, 27
 Odontionycha, 484, 485, 521, 544, 545, 547, 557
 inflata, 521
 (Odontionycha) inflata, *Cassida*, 521, 574
 Odontionycha viridis, 521
 (Odontionycha) viridis, *Cassida*, 522, 540, 542, 544
 Odontoceridae, 71
 Oecetina apicalis, 73
 disjuncta, 74
 flavida, 73
 floridana, 73
 inornata, 73
 parvula, 73
 Oecetis disjuncta, 65, 74
 incerta, 73
 inconspicua, 65, 73
 okanoganea, *Oxytropis*, 256, 257, 259
 Oxytropis campestris, 251
 oklahomensis, *Collops*, 78
 oleracea, *Spinacia*, 537
 oligacanthus, *Acnodon*, 43, 45
 Oligocassida melaena, 560
 Olivella baetica, 385
 olympica, *Oxytropis*, 242, 256, 258, 259
 Oxytropis campestris, 250
 Oma, 545
 Omaspides, 545, 547
 Omphalanthus filiformis, 595, 597, 599, 601, 602, 608
 On the Nature and Function of "Chalky" Deposits in the Shell of *Ostrea edulis* Linnaeus, by P. Korrington, 133-158
 Onopordon, 546
 Oocassida, 545
 opacipennis, *Attalus*, 118
 opacula, *Jungermannia*, 607
 Lophozia, 607
 Ophiodon elongatus, 419
 Ophiodontidae, 419
 Oporornis tolmiei tolmiei, 11
 oppositifolia, *Jungermannia*, 610
 Syzygiella, 610
 orbicularis, *Metynnis*, 50
 Orectis, 545
 oreganus montanus, *Junco*, 12
 oregonensis, *Attalus*, 99, 103, 105, 113, 114, 115, 116, 131
 Lima (*Plagiostoma*), 379
 rubryae, *Attalus*, 99, 113, 114, 115
 Tanaops, 131
 oreophila, *Oxytropis*, 185, 191, 213, 214, 215, 216, 217, 218, 261
 Spiesia, 212
 oreophilus, *Aragallus*, 212
 Astragalus, 212
 orientalis, *Aspidomorpha*, 467
 orinocensis, *Myletes*, 48
 ornata, *Notiomys*, 72
 Orobia, 252
 Orr, Robert T., Observations on the Birds of Northeastern Idaho, 1-16
 Orsodacninae, 438, 440, 550, 552
 Osmeridae, 408
 Ostrea, 154
 edulis, 133, 134, 135, 137, 142, 143, 154
 Ostrea edulis Linnaeus, On the Nature and Function of "Chalky" Deposits in the Shell of, by P. Korrington, 133-158
 Ostrea excavata, 378
 gigas, 154
 lima, 378
 lurida, 154
 otiosus, *Attalus*, 97, 103, 131
 otuquensis, *Metynnis*, 50
 Otus asio, 5
 ovalis, *Sebastodes*, 416
 ovata, *Plagiochila*, 612
 Oxylepis, 544
 oxyphylla, *Oxytropis*, 300, 301
 Oxyrhina glauca, 406
 Oxytropis, 177, 178, 179, 180, 181, 182, 184, 185, 186, 187, 189, 205, 211, 217, 222, 223, 226, 229, 234, 237, 255, 257, 258, 260, 275, 279, 296, 298, 305, 306
 acuminata, 303
 acutirostris, 304
 alaskana, 253, 255
 albertina, 256
 albiflora, 272, 275
 alpicola, 261, 262
 anadyrensis, 239
 angustata, 285
 arctica, 179, 183, 185, 190, 192, 193, 203, 204, 206, 210, 211, 219, 246, 254, 255, 296, 297, 298, 299, 300, 306.
 arctica inflata, 203, 204, 206
 arctica notabilis, 209
 arctica uniflora, 209, 298
 arctica subumbellata, 296
 aretobia, 209, 210, 211, 298

- arectobia hyperarctica*, 209
argentata, 178, 232, 304
atropurpurea, 224, 228
Aven-Nelsonii, 285
Belli, 180, 183, 185, 193, 298, 299, 300
Besseyi, 178, 184, 185, 192, 226, 229, 230, 231, 232, 235, 236, 237, 282, 304
Besseyi argophylla, 230, 231, 233, 234, 235, 282
Besseyi Besseyi, 230, 231, 232, 233, 234, 236, 260
Besseyi fallax, 230, 231, 235, 237
Besseyi salmonensis, 230, 231, 234, 236
Besseyi ventosa, 230, 231, 232, 233, 234, 235, 236, 260, 275
bilocularis, 291, 292, 293
Blankinshipii, 223, 224, 226
borealis, 246, 248
Bushii, 285, 287
campestris, 178, 179, 184, 185, 188, 192, 193, 206, 210, 239, 242, 243, 248, 249, 250, 252, 254, 255, 259, 262, 265, 266, 267, 268, 277, 278, 279, 288, 297, 305
campestris americana, 267
campestris cascadiensis, 251
campestris cervinus, 251
campestris chartacea, 251, 253, 265, 269
campestris coerula, 249
campestris columbiana, 251, 253, 264, 265
campestris Cusickii, 251, 253, 254, 259, 261, 263, 265, 278
campestris dispar, 186, 251, 252, 260, 263, 264, 265, 288
campestris glabrata, 258, 293, 294, 295
campestris gracilis, 188, 241, 244, 250, 253, 254, 255, 258, 259, 260, 261, 262, 263, 265, 278, 279, 288
campestris johannensis, 251, 253, 265, 267, 268, 269, 288
campestris johannensis bicensis, 186
campestris luteola, 250
campestris Mazama, 251
campestris melanocephala, 249, 293, 295
campestris okanoganea, 251
campestris olympica, 250
campestris Paysoniana, 251
campestris Rydbergii, 251, 261
campestris sordida, 248, 255, 306
campestris speciosa, 274, 276, 277, 279
campestris spicata, 276, 277
campestris sulphurea, 276, 279
campestris terrae-novae, 190, 191, 251, 253, 265, 266, 267, 268, 305, 306
campestris varians, 185, 189, 244, 248, 250, 252, 253, 254, 255, 265, 295
campestris verrucosa, 246, 248
campestris villosa, 250
cascadiensis, 256, 257, 258
caudata, 300
chartacea, 269
collina, 280
columbiana, 264
condensata, 272, 275
coronaminis, 296, 297, 298
Cusickii, 261, 262
deflexa, 178, 183, 185, 190, 193, 194, 195, 196, 197, 199, 303, 304
deflexa culminis, 199
deflexa deflexa, 196, 197, 201, 304
deflexa foliolosa, 196, 197, 198, 201
deflexa sericea, 196, 197, 199, 200, 201
deflexa subcapitata, 194, 198
dispar, 263, 288
erecta, 254
falcata, 285
foetida, 239
foliolosa, 179, 182, 194, 195, 197, 199
gaspensis, 240, 241, 242, 243
glabrata, 258, 293, 295
gracilis, 254, 255, 257, 258, 259, 260, 295
Hallii, 204, 205, 209
Hookeri, 289
Hookeriana, 285, 289
hudsonica, 245, 246
hyperborea, 253, 254
includens, 185
inflata, 203
involuta, 285
ixodes, 240, 242, 243, 245
ixodes ecaudata, 241
johannensis, 186, 249, 268
johannensis bicensis, 267
Jonesii, 185, 191, 213, 215, 216, 217, 222
kokrinensis, 185, 190, 202, 211, 212
Lagopus, 179, 184, 185, 187, 191, 192, 222, 223, 224, 225, 226, 228, 229, 232, 282
Lagopus atropurpurea, 185, 188, 215, 221, 224, 226, 227, 228, 238, 260, 304

- Lagopus conjugans*, 221, 224, 225, 226
 227
Lagopus Lagopus, 221, 224, 225, 226,
 227, 228
Lambertii, 178, 182, 184, 185, 186, 188,
 191, 225, 229, 232, 233, 244, 255,
 256, 259, 263, 264, 267, 271, 274,
 275, 279, 281, 282, 283, 284, 285,
 288, 289, 290, 292, 293, 304, 305
Lambertii articulata, 284, 286, 288,
 289, 290, 293
Lambertii Bigelovii, 233, 261, 275,
 284, 286, 289, 290, 291, 292, 293, 305
Lambertii canadensis, 305
Lambertii Lambertii, 284, 285, 287,
 289, 290, 292, 293, 305
Lambertii lilacina, 272, 275
Lambertii leucophylla, 304
Lambertii mixta, 285
Lambertii ochroleuca, 272, 275
Lambertii pannosa, 305
Lambertii sericea, 272
Lambertii vivida, 304, 305
lapponica, 199
leucantha, 239, 246, 247, 248, 249, 260
Lunelliana, 280
luteola, 243, 256, 257, 258
Macounii, 259, 277
Maydelliana, 185, 189, 191, 255, 258,
 293, 295, 298, 299
Mazama, 256, 257, 258, 259
Mertensiana, 185, 190, 201, 202, 203
micans, 302
minor, 219
mollis, 240
montana, 178
monticola, 229, 241, 249, 255, 257, 259,
 260, 261
multiceps, 182, 184, 185, 191, 217, 219,
 221, 222, 281
multiceps minor, 215, 217, 219, 220,
 221, 222
nana, 184, 185, 191, 226, 231, 233, 234,
 274, 279, 281, 282
nigrescens, 183, 185, 191, 203, 205,
 206, 207, 208, 209, 210, 212
nigrescens arctobia, 209
nigrescens bryophila, 207, 208
nigrescens genuina, 207
nigrescens hyperarctica, 210, 211
nigrescens nigrescens, 202, 205, 207,
nigrescens pygmaea, 207
 211
nigrescens uniflora, 202, 206, 207, 209,
 211, 298
nigrescenti, 210
nothoxys, 305
obnapiformis, 180, 184, 185, 192, 231,
 235, 236, 237
okanoganea, 256, 257, 259
olympica, 242, 256, 257, 258, 259
oreophila, 185, 191, 213, 214, 215, 216,
 218, 261
oxyphylla, 300, 301
Parryi, 185, 191, 213, 215, 217, 218, 219
patens, 283, 291, 292
Paysoniana, 261, 262
pinetorum, 272, 274, 275, 293
plattensis, 285, 287
podocarpa, 179, 183, 185, 190, 202, 203,
 205, 206, 212, 218, 219, 235
polaris, 305
pygmaea, 205, 207, 208, 209, 210
retrorsa, 194, 195, 196, 199, 200
retrorsa sericea, 194, 199
Richardsonii, 300
riparia, 302
Roaldi, 180, 296, 297, 298
rubricaudex, 212
Rydbergii, 261
saximontana, 272, 275
Scammaniana, 185, 191, 202, 203
sericea, 184, 185, 188, 192, 233, 261,
 263, 269, 270, 271, 272, 274, 275,
 279, 281, 283, 293, 305
sericea sericea, 271, 272, 273, 277, 278,
 293, 305
sericea spicata, 259, 271, 273, 276,
 278, 279
sewardnensis, 298
sordida, 249
splendens, 178, 179, 183, 185, 193,
 244, 295, 300, 302
splendens Nelsonii, 300
splendens Richardsonii, 300, 301, 302
splendens strigosa, 300
splendens vestita, 300, 302
spicata, 276
terrae-novae, 249, 266, 298
Trautvetteri, 239
uralensis, 179, 267, 306
uralensis arctica, 296, 298
uralensis minor, 266, 267, 306
uralensis pumila, 219, 226
uralensis subsucculenta, 246, 247, 306
varians, 183, 253, 254

- vegana, 272
 villosa, 256
 viscida, 177, 185, 188, 191, 193, 238, 239, 241, 242, 243, 244, 254, 258, 260, 261, 288
 viscida hudsonica, 190, 239, 240, 243, 245, 297, 306
 viscida subsucculenta, 239, 240, 246, 247, 248
 viscida viscida, 239, 240, 245
 viscidula, 240, 242, 243
 pacifica, Pasiphaea, 394
 Placiphorella, 390
 Placiphorella (Placophoropsis), 390, 396
 pacificus, Anthus spinoletta, 10
 Glyptocephalus, 413
 Microstomus, 413
 pacis, Liotia, 387
 paco, Myletes, 39
 pacu, Myletes, 39
 Myleus, 30, 33, 35, 36, 38, 39, 41
 pallida, Basiprionota, 457
 Cyclothone, 400, 409
 Prioptera, 442
 pallidicollis, Cassida, 505, 514
 Cassida (Cassida), 514
 morawitzi, Cassida, 514
 pallidiventris, Cassida berolinensis, 507
 pallifrons, Attalus, 97, 103, 131
 pallipes, Collops, 83
 Palmaceae, 544, 546, 547, 549, 562
 palmata, Ipomoea, 490
 palmeri, Asterella, 595
 Fimbriaria, 595
 palometa, Myletes, 30, 40
 Pandion haliaetus, 4
 paniculatus, Amaranthus, 537
 pannosa, Oxytropis Lambertii, 305
 parallelepennis, Aspidomorpha (Sindiola), 469
 parallelus, Attalus, 95, 107, 108
 Paramyloplus, 19, 32, 33
 ternetzi, 39
 parma, Myletes, 31, 40
 Parryanus, Astragalus, 217
 Parryi, Aragallus, 217
 Astragalus, 217
 Epistichia, 453
 Oxytropis, 185, 191, 213, 215, 217, 218, 219
 Spiesia, 217
 Parus atricapillus fortuitus, 7
 gambeli grinnelli, 8
 rufescens, 8
 parvula, Cassida, 524
 Cassida (Cassidula), 524
 Cassida (Cassidulella), 524
 Cassidulella, 523
 Oecetina, 73
 Pasiphaea pacifica, 394
 Passerculus sandwichensis anthinus, 12
 Passerella iliaca schistacea, 13
 passerina arizonae, Spizella, 12
 patagonica, Lima (Acesta), 380
 Patagonula, 546
 patens, Aragallus, 288, 291, 292, 293
 Oxytropis, 283, 291, 292
 paucispinis, Sebastes, 414
 Sebastodes, 414, 418
 Paysoniana, Oxytropis, 261, 262, 293
 Oxytropis campestris, 251
 Pecten caurinus, 348, 358
 pectinatus, Helcogaster, 129
 pectoralis, Cassida berolinensis, 507
 pelagicus, Nectoliparis, 400, 421
 Pelecypod of the Genus Lima from Deep Water off Central California, Description of a New, by Leo George Hertlein, 377, 381
 Pelecypoda, 378, 384
 pelta, Acmaea, 384
 Peltolejeunea galapagana, 612
 jackii, 608
 peninsularis, Collops, 85
 Perisoreus canadensis bicolor, 7
 perplexa, Epistichia, 453
 pescadorensis, Metriona circumdata, 490
 pes-caprae, Ipomoea, 466
 Petersonii minor, Silene, 217
 Petrography of Rocks Dredged off the Coast of Central California, Descriptive, by Charles W. Chesterman, 359-374
 pettiti, Attalus, 98, 108, 109, 131
 Phaca, 181
 Phacoxytropis, 182, 183
 phaia, Bonasa umbellus, 4
 Philaspis, 545
 philippinensis, Aspidomorpha, 472
 philo, Hydropsyche, 66, 70
 Philopotamidae, 67
 Phocoenoides dalli, 411
 Pholadidea, 344, 346
 ovoidea, 345
 Photonectops multipunctata, 410

- Physocalyx*, 184
 multiceps, 219, 222
Physalis, 546
Physonota, 545, 547
Physoxytropis, 182, 183, 184
Phytophaga, 437
Piaractus, 26, 27
Piaretus, 26
picinus, *Hylatomus pileatus*, 6
Picöides arcticus, 6
 tridactylus fasciatus, 6
pileatus picinus, *Hylatomus*, 6
Pilemostoma, 545
pileolata, *Wilsonia pusilla*, 11
pililoba, *Lejeunea*, 610
 Stylolejeunea, 604, 610
pinetorum, *Aragallus*, 271, 272, 274, 275, 276
 Oxytropis, 272, 274, 275, 293
 veganus, *Aragallus*, 270, 271, 272, 274
Pinicola enucleator, 11
pinniger, *Sebastodes*, 416
pinus, *Spinus*, 11
piperata, *Cassida*, 505, 515
 Cassida (*Cassida*), 515
 japana, *Cassida*, 509
Piranga ludoviciana, 11
piraya, *Serrasalmus*, 55
Pithecoctenium, 546
Placiphorella, 389, 392
 pacifica, 390
 (*Placophoropsis*) *pacifica*, 390, 396
Placiphora atlantica, 392
 (*Euplacophora*) *atlantica*, 392
Placophoropsis, 392
 (*Placophoropsis*) *pacifica*, *Placiphorella*, 390, 396
Plagiochamsa rupestre, 608
Plagiochila anderssonii, 608
 asplenoides, 604, 609
 breuteliana, 609
 bursata, 598, 599, 604, 607, 609
 martiana, 608, 609
 ovata, 612
 spinifera, 612
 subsimplex, 612
 trifida, 612
Plagiometriona, 545, 547
Plagiostoma, 378
 (*Plagiostoma*) *oregonensis*, *Lima*, 379
plattensis, *Oxytropis*, 285, 287
Platessa bilineata, 413
Platicthys stellatus rugosus, 414
platinum, *Calliostoma*, 380, 396
Platyauchenia, 544
Platylejeunea pogonoptera, 610
plausibilis, *Cassida* (*Taiwania*), 498, 570
 Coptocycla, 498
 Metriona, 498
 Taiwania, 488
Plaxiphora, 392
Pleuronectidae, 413
podocarpa, *Oxytropis*, 179, 183, 185, 190, 202, 203, 205, 206, 212, 218, 219, 235
 Spiesia, 203
podocarpus, *Astragalus*, 203
Poecilaspis, 545, 547
pogonoptera, *Lejeunea*, 610
 Platylejeunea, 610
pogonopterum, *Symbiezidium*, 607, 609, 610
polaris, *Oxytropis*, 305
Polemoniales, 546, 547
Polyadena, 184, 239
Polychalca, 545, 547
Polydora ciliata, 136
Polyplacophora, 389
Porella navicularis, 609
prasina, *Cassida*, 506, 516
 Cassida (*Cassida*), 516
 Cassida sanguinolenta, 516
Preliminary Report on the Behavior of the Pacific Sardine (*Sardinops caerulea*) in an Electrical Field, by Tom Groody, Anatole Loukashkin, and Norman Grant, 311-323
Premna, 456, 547
pretiosus, *Hypomesus*, 400, 408, 428
Princeps, 546
Prionace glauca, 406
Prioptera, 454
 angusta, 456
 angusta fulva, 456
 bimaculata, 456, 457
 bisignata, 457
 chinensis, 457
 maculipennis reducta, 458
 multipunctata, 459
 pallida, 442
 satrapa, 457
 trabeata, 459
 Whitei, 459
 whitei trabeata, 459
Priopterini, 444
Pristigaster, 23
probata, *Cassida*, 505, 516

- Cassida* (*Cassida*), 516
Prochilodinae, 23
productus, *Merluccius*, 413
Progne subis, 7
promiscua, *Chirida*, 442
Proto-Astragalus, 182, 185
Protoptila, 66
Prunus, 503, 545
Psalidonota, 545
Psectrogaster, 23
Psettichthys melanostictus, 413
Pseudacesta, 378
(*Pseudacesta*) *dieneri*, *Mysidoptera*, 378
Pseudebaeus, 92
apicalis, 92
bicolor, 131
oblitus, 92
pusillus, 131
Pseudomesomphalia, 545, 547
Psychomyiidae, 70
pterogonia, *Jungermannia*, 611
Taxilejeunea, 599, 603, 609, 611
Ptiloxytropis, 182
pubescens leucurus, *Dendrocopos*, 6
pulligo, *Tegula*, 385
pumila, *Oxytropis uralensis*, 219, 226
punctaria, *Cassida*, 483
Chirida, 483
Coptoeycla, 483
punctata, *Cassida*, 483
Chirida, 483
Chiridopsis, 483, 572
punctatus, *Collops*, 130
puncticolle, *Lacoptera vigintisexnotata*, 470
punctulatus, *Collops*, 130
purpurea, *Ipomoea*, 472
purpuricollis, *Cassida* (*Taiwania*), 498
Metriona, 498
Taiwania, 487
pusilla pileolata, *Wilsenia*, 11
pusillus, *Pseudebaeus*, 131
pygmaea, *Oxytropis*, 205, 207, 208, 209, 210
Oxytropis nigrescens, 207, 209
pygmaeus, *Astragalus*, 207, 208, 209
Pygopristus, 23, 25, 26, 54
denticulatus, 20, 54
Pyrostegia, 546
Pyrus, 545
serotina, 503
quadrimaculata Bohemani, *Lacoptera*, 471, 472
Lacoptera, 471, 472, 537, 540, 541, 543, 584, 586
quadrimaculatus, *Collops*, 130
quadriramosa, *Cassida* (*Taiwania*), 499
quadriramosa, *Taiwania*, 487
quadrispina, *Munida*, 395
quatuordecimpunctata, *Cassida*, 466
Radula affinis, 598, 609
galapagona, 612
retroflexa, 612
Raja stellulata, 407
trachura, 400, 406, 427
Rajidae, 406
Rare Species of Chiton from Pioneer Seamount Off Central California, A, by A. G. Smith and G. D. Hanna, 389-392
rathbuni, *Lima* (*Callolima*), 378
rati, *Cassida*, 499, 500
Cassida (*Taiwania*), 500
Metriona, 500
Taiwania, 487
rayneri, *Rhyacophila*, 66, 67
Rectolejeunea maxonii, 597, 610
reducta, *Basiprionota maculipennis*, 455, 458, 541, 568
Prioptera maculipennis, 458
reflexus, *Collops*, 130
regalis, *Lampanyctus*, 412
Regulus satrapa amoenus, 10
reitteri, *Hebdomecosta*, 477, 479
Relationships of the Pelagic Shark, *Euprotomierus bispinatus*, with Description of a Specimen from off California, by Carl L. Hubbs and J. L. McHugh, 159-176
repandum, *Thelypodium*, 235
repandus, *Eponides*, 376
resima, *Crago*, 394
Crago, 394
retroflexa, *Radula*, 612
retroflexus, *Astragalus*, 196
retrorsa, *Oxytropis*, 194, 195, 196, 199, 200
sericea, *Oxytropis*, 194, 199
Revision of the North American Species of *Oxytropis* Dc., by R. C. Barneby, 177, 309
rhino, *Lepidostoma*, 66, 75
rhombus, *Serrasalmus*, 22
rhomboidalis, *Myletes*, 40
Myleus, 22, 30, 37, 39, 40
Myloplus, 40
Rhyacophila, 66

- iranda, 66
 rayneri, 66, 67
 Rhyacophilidae, 66
 Rhynchophora, 437
 Riccia howellii, 612
 iodocheila, 612
 mauryana, 612
 nigrella, 612
 sorocarpa, 612
 trichocarpa, 612
 Richardsonii, Aragallus, 300
 Astragalus splendens, 300
 richardsonii, Contopus, 7
 Dendragapus obscurus, 4
 Richardsonii, Oxytropis, 300
 Oxytropis splendens, 300, 301, 302
 rigens, Aragallus, 285, 287
 riojaneirensis, Frullania, 599, 602, 603, 607
 Frullanioides, 603
 riparia, Frullania, 603
 Oxytropis, 302
 ritteri, Lampanyctus, 412
 Rivea, 547
 Roaldi, Oxytropis, 180, 296, 297, 298
 robertsae, Lima, 379
 Rocks Dredged off the Coast of Central California, Descriptive Petrography of, by Charles W. Chesterman, 359-374
 roosevelti, Metynnis, 50, 51, 52
 Rosaceae, 545, 547
 rosaceus, Sebastodes, 417
 Rosales, 545
 Rosicola miniatus, 416
 Ross, Herbert H., The Trichoptera of Lower California, 65-75
 rostratus, Attalus, 99, 100, 116
 ruberrimus, Sebastodes, 416, 417, 418
 Rubiaceae, 545, 546, 547
 Rubiales, 546
 rubiginosa, Cassida, 517
 Cassida (Cassida), 542, 544
 Cassida rubiginosa, 518
 rubiginosa, Cassida, 518
 rugosopunctata, Cassida, 506, 517, 518
 rugosopunctata, Cassida (Cassida), 517
 taiwana, Cassida, 506
 taiwana, Cassida (Cassida), 517
 rubricaudex, Oxytropis, 212
 rubripinnis, Myletus, 40
 Myleus, 31, 37, 40
 Myloplus, 40
 rubrodorsata, Aspidomorpha, 464
 rubryae, Attalus oregonensis, 98, 113, 114, 115
 Rubyi, Astragalus, 303
 rufescens, Parus, 8
 rufipennis, Attalus, 126
 rufiventris, Attalus, 95, 98, 100, 107, 108, 111, 114, 121, 123, 131
 rufomarginatus, Attalus, 94, 100, 124, 125, 126
 Scalopterus, 125
 rufus, Selasphorus, 5
 rugifera, Cassida, 509
 rugosopunctata, Cassida, 517
 Cassida (Cassida) rubiginosa, 517
 Cassida rubiginosa, 506, 517, 518
 rugosus, Platichthys stellatus, 414
 rupestre, Plagiochasma, 608
 rupestris, Aytonia, 608
 russata, Cassida, 507, 513
 russica, Cassida, 511
 Cassida lineola, 511
 rusticus, Attalus, 96
 Rydbergianus, Astragalus, 256
 Rydbergii, Oxytropis, 261
 Oxytropis campestris, 251, 261
 Sabal, 546
 sagitta, Setodes, 73
 sagittosa, Notiomyia, 66, 72
 sagraeana, Lopholejeunea, 606
 Sagrinae, 438, 439, 550, 552
 St. Crucis, Cassida, 466
 saira, Cololabis, 410
 Scomberesox, 410
 Salicornia, 545
 salina, Artemia, 313
 salmonea, Margarites, 385
 salmonensis, Oxytropis Besseyi, 230, 231, 234, 236
 Salsola, 545
 salsolae, Cassida, 481
 Salvia, 523, 546
 sanctae-crucis, Aspidomorpha, 536, 540, 542, 543
 sancti-crucis, Aspidomorpha, 461, 466, 467, 570, 586
 sanctus, Attalus tucsonensis, 98, 111
 sandwichensis anthinus, Passerculus, 12
 sanguinolenta prasina, Cassida, 516
 stigmatica, Cassida, 520
 santarosae, Attalus, 100, 123, 126
 Saponaria, 545, 548

- Sardine (*Sardinops caerulea*) in an Electrical Field, A Preliminary Report on the Behavior of the Pacific, by Tom Groody, Anatole Loukashkin, and Norman Grant, 311-323
- Sardinops caerulea*, 311, 322
- sarmenti*, *Squaliolus*, 162, 171
- satrapa amoenus*, *Regulus*, 10
- Prioptera*, 457
- sauteri*, *Cassida*, 500
- Cassida* (Taiwania), 500
- Sauteri*, *Hoplionota*, 449
- sauteri*, *Notosacantha*, 445, 449
- Taiwania, 487, 488, 500
- saximontana*, *Oxytropis*, 272, 275
- saximontanus*, *Aragallus*, 272, 275
- Astragalus*, 272
- condensatus*, *Aragallus*, 272
- Scalopterus*, 125
- rufomarginatus*, 125
- Scammaniana*, 183
- Oxytropis*, 185, 191, 202, 203
- schistacea*, *Passerella iliaca*, 13
- schomburgkii*, *Mylesinus*, 20, 22, 29, 59
- Myletes*, 40
- Myleus*, 30, 36, 40
- Myloplus*, 40
- Tetragonopterus*, 40
- schreitmülleri*, *Metynnis*, 48
- Metynnis calichromus*, 48
- schulzei*, *Myloplus*, 31, 41
- scincetus*, *Attalus*, 99, 121, 131
- confusus*, *Attalus*, 97, 98, 121
- Schomberesocidae*, 410
- Scomberesox saira*, 410
- Scopelarchidae*, 412
- Scorpaenichthys marmoratus*, 420
- Scorpaenidae*, 414
- Scorzonera*, 546
- Scrophulariaceae*, 545, 546, 547
- Scrophulariales*, 546
- Scyliorhinidae*, 406
- Scymnorhinidae*, 160
- Scymnus bispinatus*, 159
- Sealeina hippincottianus*, 50
- Sebastes nebulosus*, 418
- paucispinis*, 414
- Sebastes*, 400, 414, 417, 418
- constellatus*, 417
- flavidus*, 414, 415, 418
- maliger*, 418
- miniatus*, 414, 416, 418
- nebulosus*, 418
- ovalis*, 416
- paucispinis*, 414, 418
- pinniger*, 416
- rosaceus*, 417
- ruberrimus*, 416, 417, 418
- serranoides*, 400, 415
- wilsoni*, 416, 417
- sedecimmaculata*, *Aspidomorpha*, 469
- Cassida*, 469
- Sindia*, 469
- Seila montereyensis*, 385
- seitzii*, *Metynnis*, 46, 50
- Selasphorus rufus*, 5
- Selenis*, 545
- semirubidus*, *Attalus*, 98, 106, 131
- Senecio*, 546
- sennae-bragai*, *Utiaritchthys*, 20, 30, 32, 60
- sepium japonica*, *Calystegia*, 462
- septentrionalis*, *Astragalus*, 203
- seraphina*, *Cassida*, 485
- sericea*, *Aragallus albiflorus*, 278
- Oxytropis*, 184, 185, 188, 192, 233, 261, 263, 269, 270, 271, 272, 274, 275, 279, 281, 283, 293, 305
- Oxytropis deflexa*, 196, 197, 199, 200, 201
- Oxytropis Lambertii*, 272
- Oxytropis retrorsa*, 194, 199
- Oxytropis sericea*, 271, 272, 273, 275, 277, 278, 293, 305
- sericea*, *Oxytropis*, 271, 272, 273, 275, 277, 278, 293, 305
- spicata*, *Oxytropis*, 259, 271, 273, 276, 278, 279
- Spiesia Lambertii*, 272
- sericeus*, *Aragallus*, 272
- Aragallus Lambertii*, 272
- Sericostoma*, 74
- griseolum*, 74
- Sericostomatidae*, 74
- serotina*, *Pyrus*, 503
- serranoides*, *Sebastodes*, 400, 415
- Serrasalminae*, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 45
- Serrasalmonina*, 17
- Serrasalmoninae*, 17, 24
- Serrasalmus*, 17, 18, 22, 23, 25, 26, 54
- Serrasalmus boekeri*, 55
- elongatus*, 20
- nattereri*, 20, 28
- piraya*, 55
- rhombeus*, 22

- striolatus, 20
 serraticornis, Attalus, 98, 107, 131
 Serratula, 546
 sessilis, Alternanthera, 509, 516, 537, 539
 setiger, Myleus, 20, 28, 30, 33, 34, 35, 36, 38, 39
 setiloba, Lejeunea, 598, 600, 603, 604
 Setodes flaveolata, 73
 micans, 73
 sagitta, 73
 setosus, Attalus, 99
 sewardensis, Oxytropis, 298
 Shells from the Bird Guano of Southeast
 Farrallon Island, California, with De-
 scription of a New Species of Liotia,
 by Allyn G. Smith, 383-387
 Sialia currucoideus, 9
 sibirica, Cassida, 511
 sicaefolia, Cololejeunea, 601
 sigillata, Coptocyclus, 501
 Metriona, 501
 Taiwania, 487
 signata, Cassida, 511
 Cyclothone, 408
 sikanga, Cassida, 506
 sikanga, Cassida (Cassida), 518, 574
 Silene, 545, 548
 Petersonii minor, 217
 Silphium, 546
 Silybum, 546
 similis, Collops, 84, 85, 130
 simplex, Collops, 82
 simulans, Anthoceros, 611
 Sindia, 443, 468, 540, 541, 545, 553
 sedecimmaculata, 469
 Sindiola, 443, 469
 hospita, 469, 568
 (Sindiola) parallelipennis, Aspidomorpha,
 469
 sinensis, Citrus, 538
 singularis, Cassida, 520
 sinica, Notosacantha, 445, 449, 574
 Siphogeneroides, 345
 Sitta canadensis, 8
 Smicridea, 70
 Smith, A. G., and G. D. Hanna, A Rare
 Species of Chiton from Pioneer Sea-
 mount off Central California, 389-392
 Smith, Allyn G., Shells from the Bird
 Guano of Southeast Farrallon Island,
 California, with Description of a New
 Species of Liotia, 383, 387
 smithi, Attalus morulus, 97, 101, 102, 131
 coloradensis, Attalus, 101, 102
 smethlageae, Metynnis, 52
 Solanaceae, 545, 546, 547
 Solanum, 546
 Solemya, 377
 Some Decapod Crustacea Dredged off the
 Coast of Central California, by Delbert
 G. Goodwin, 393-397
 Some Hepaticae from the Galapagos,
 Cocos, and Other Pacific Coast Islands,
 by Lois Clark, 593-624
 Somniosus, 162, 163, 164
 Sonchus, 546
 Sorbus, 545
 Sorbus gracilis, 503
 sordida, Oxytropis, 249
 Oxytropis campestris, 248, 255, 306
 sordidus, Astragalus, 305
 Citharichthys, 413
 sorocarpa, Riccia, 612
 spaethi, Cassida, 506, 520
 Cassida (Cassida), 520
 mandschukuoensis, Cassida, 520
 Taiwania, 502
 spaethiana, Cassida, 502
 Cassida (Taiwania), 502, 570
 Taiwania, 488
 Spaethiella, 544, 545
 sparsa, Coptocyclus, 515
 sparverius, Falco, 4
 speciosa, Oxytropis campestris, 274, 276,
 277, 279
 Spergula, 545, 548
 Sphaerocarpus cristatus, 610
 Sphinginus, 128
 eburatus, 128
 mexicanus, 128
 Sphyrapius thyroideus, 6
 varius nuchalis, 6
 spicata, Oxytropis, 276
 Oxytropis campestris, 276, 277
 Oxytropis sericea, 259, 271, 273, 276,
 278, 279
 spicatus, Aragallus, 259, 271, 276, 278, 279
 Spiesia, 177, 179
 acutirostris, 304
 arctica, 296
 aretobia, 209
 inflata, 203
 Lagopus, 224
 Lambertii, 285
 Lambertii sericea, 272

- leucantha*, 246
Mertensiana, 201
monticola, 255
multiceps, 219
nana, 279
nigrescens, 207
oreophila, 212
Parryi, 217
podocarpa, 203
splendens, 300
viscida, 239, 260
spilota, *Coptocycla*, 479
Glyphocassis, 478, 479
Hebdomecosta, 479
Metriona, 479
Spinacia oleracea, 537
spinifer, *Tanaops*, 87
spinifera, *Plagiochila*, 612
spinoletta pacificus, *Anthus*, 10
spinosa, *Ceratolejeunea*, 599
Lejeunea, 599
spinosus, *Hemilepidotus*, 400, 420, 421, 431, 432
Spinus pinus, 11
Spirontocaris cristata, 394
Spizella passerina arizonae, 12
splendens, *Aragallus*, 300
Astragalus, 300
Nelsonii, *Oxytropis*, 300
Oxytropis, 178, 179, 183, 185, 193, 244, 295, 300, 302
Richardsonii, *Astragalus*, 300
Richardsonii, *Oxytropis*, 300, 301, 302
Spiesia, 300
strigosa, *Oxytropis*, 300
vestita, *Oxytropis*, 300, 302
spretus, *Collops*, 80
Squalidae, 163, 164, 171
Squaliolus, 160, 161, 162, 163, 164, 165, 171
laticaudus, 162, 171
sarmenti, 162, 171
squamata, *Stictolejeunea*, 610
squarrosa, *Frullania*, 603
Jungermannia, 604
Stachys, 523, 546
Stellaria, 545
stellatus rugosus, *Platichthys*, 414
stelleri annectens, *Cyanocitta*, 7
stellulata, *Raja*, 407
Stenoproptera, 443, 453, 551
tibetana, 454
Stereuliaceae, 545, 546, 547, 548
Sternoptychidae, 408
Sternoptyx obscura, 409
Stethaprioninae, 18, 23
Stevensi, *Aspidomorpha*, 467
Stichacidae, 422
Stictolejeunea squamata, 610
stigmatica, *Cassida*, 506, 520
Cassida (*Cassida*), 520
Cassida sanguinolenta, 520
stilbius, *Leuroglossus*, 408
striatus velox, *Accipiter*, 3
strigosa, *Oxytropis splendens*, 800
striolatus, *Serrasalmus*, 20
Strongylaspis, 545
Studies in the Malachiidae. III, by M. Y. Marshall, 77-132
Stylolejeunea pililoba, 604, 610
subaeneus, *Collops*, 130
subalpina, *Draba*, 217
subcapitata, *Oxytropis deflexa*, 194, 198
subfasciatus, *Attalus*, 95, 99, 100
subferruginea, *Hypocassida*, 541
subis, *Progne*, 7
sublimbatus, *Collops*, 130
submarginatus, *Attalusinus*, 86
subobsoleta, *Glycemeris*, 384
subsimplex, *Macrolejeunea*, 611
Plagiochila, 612
subsucculentata, *Oxytropis uralensis*, 246, 247, 306
Oxytropis viscida, 239, 240, 246, 247, 248, 297
subtropicus, *Attalus*, 100, 122
subumbellata, *Oxytropis arctica*, 296
sulphurea, *Oxytropis campestris*, 276, 279
sulphureus, *Attalus*, 98, 112
suturalis, *Cassida*, 511
Symbiezidium pogonopterum, 607, 609, 610
transversale, 599, 609, 610
vincentinum, 607, 610
symmetricus, *Trachurus*, 414
Syngambria, 545
Szygiella oppositifolia, 610
szechuana, *Glyphocassis trilineata*, 478, 480, 570
Tactostoma macropus, 400, 409
taiwana, *Cassida* (*Cassida*) *rubiginosa*, 517
taiwana, *Cassida rubiginosa*, 506
Taiwania, 484, 485, 486, 487, 509, 544, 547, 557
achardi, 500
amurensis, 488
(Taiwania) amurensis, *Cassida*, 489, 572

- Taiwania circumdata*, 488
 (*Taiwania*) *circumdata*, *Cassida*, 489, 537, 540, 542, 544, 570, 586
Taiwania discalis, 489
 (*Taiwania*) *discalis*, *Cassida*, 491, 574
Taiwania eoa, 487
 (*Taiwania*) *eo*a, *Cassida*, 491
Taiwania expansa, 488
 (*Taiwania*) *expansa*, *Cassida*, 492
Taiwania expressa, 489
 (*Taiwania*) *expressa*, *Cassida*, 493
Taiwania imitatrix, 488
 (*Taiwania*) *imitatrix*, *Cassida*, 493, 574
Taiwania insulana, 489
 (*Taiwania*) *insulana*, *Cassida*, 495, 574
Taiwania juglans, 489
 (*Taiwania*) *juglans*, *Cassida*, 496
Taiwania juno, 488
 (*Taiwania*) *juno*, *Cassida*, 496
Taiwania obtusata, 488
 (*Taiwania*) *obtusata*, *Cassida*, 497, 537, 540, 542, 544, 582
Taiwania plausibilis, 488
 (*Taiwania*) *plausibilis*, *Cassida*, 498, 570
Taiwania purpuricollis, 487
 (*Taiwania*) *purpuricollis*, *Cassida*, 498
Taiwania quadriramosa, 487
 (*Taiwania*) *quadriramosa*, *Cassida*, 499
Taiwania rati, 487
 (*Taiwania*) *rati*, *Cassida*, 500
Taiwania sauteri, 487, 488, 500
 (*Taiwania*) *sauteri*, *Cassida*, 500
Taiwania sigillata, 487
 (*Taiwania*) *sigillata*, *Cassida*, 501
Taiwania spaethi, 502
 spaethiana, 488
 (*Taiwania*) *spaethiana*, *Cassida*, 502, 570
Taiwania versicolor, 488
 (*Taiwania*) *versicolor*, *Cassida*, 502, 570
tamarisci, *Frullania*, 611
Tanacetum, 546
Tanaops, 87, 88, 95, 116, 122, 126
 abdominalis, 125, 126
 basalis, 131
 coelestinus, 87, 130
 complex, 87
 dubitans, 130
 mimus, 86, 87, 130
 neglectus, 116, 126
 oregonensis, 131
 spinifer, 87
 terminalis, 87, 130
tanneri, *Chionoecetes*, 395
Targionia hypophylla, 595, 611
Tarletonbeania crenularis, 410
Taxilejeunea pterogonia, 599, 603, 609, 611
Tecoma, 546
Tectona, 467, 547
Tegula brunnea, 385
 pulligo, 385
Telaranea nematodes, 611
tenuicaulis, *Bryopteris*, 597
temuis, *Jungermannia flicina*, 597
teretiuscula, *Bazzania*, 595
teretiunculium, *Mastigobryum*, 595, 597
terminalis, *Attalus*, 98, 106, 131
 Tanaops, 87, 130
ternetzi, *Myleus*, 30, 36, 39
 Paramylopus, 39
terrae-novae, *Oxytropis*, 249, 266, 298
 Oxytropis campestris, 190, 191, 251, 253, 265, 266, 267, 268, 305, 306
testacea, *Coptocycla*, 477
 Thlaspidia, 477
testudo, *Cassida*, 485
Tetragonopterinae, 18
Tetragonopterus, 18
 latus, 40
 schomburgkii, 40
tetrasticta, *Glyphocassis*, 478
texana, *Leptocella*, 74
texanus, *Attalus*, 100, 120, 131
 Collops, 130
Thais, *Coptocycla*, 502
 Metriona, 503
thais crucifera, *Metriona*, 503
Thelypodium repandum, 235
Theobroma, 546
theta, *Diaphus*, 411
theveneti, *Anthocomus*, 90, 130
Thlaspidia, 444, 473, 474, 545, 547, 553, 560
 biramosa, 475
 biramosa chinensis, 474, 570
 biramosa japonica, 474, 475
 chinensis, 474, 503
 formosae, 474, 476
 formosae immaculatipennis, 476
 japonica, 474, 475
 lewisi, 474, 477, 570
 testacea, 477
Thunbergi, *Lacoptera*, 471
Thymus, 546, 548
thyroideus, *Sphyrapius*, 6
tibetana, *Stenoprioptera*, 454
tibialis, *Collops*, 80
tieté, *Myletes*, 42

- Myleus*, 31, 37, 42, 43
tigrina, Cassida, 513
Tinodes, 70
tolmiei, *Oporornis tolmiei*, 11
 tolmiei, *Oporornis*, 11
Tomae, *Astragalus*, 279
Tomète, 35
 maculatus, 41, 42
Tometes, 35, 37
 altipinnis, 37
 trilobatus, 30, 38
 unilobatus, 30, 39
torquatus, *Myletes*, 39
 Myleus, 30, 36, 39
Tortoise Beetles of China, (*Chrysomelidae*: *Cassidinae*), The, by J. Linsley Gressitt, 433-592
townsendi, *Dendroica*, 10
 Myadestes, 10
Townsendia minima, 217
trabeata, *Prioptera*, 459
 Prioptera whitei, 459
trachura, *Raja*, 400, 406, 427
Trachurus symmetricus, 414
transmarinus, *Attalus*, 99, 100
transparipennis, *Aspidomorpha*, 461, 468
 Coptocycla, 468
 elliptica, *Aspidomorpha*, 468
 vetula, *Aspidomorpha*, 468
transversale, *Symbiezidium*, 599, 609, 610
transversalis, *Jungermannia*, 610
Trautvetteri, *Oxytropis*, 239
tredecimpunctata, *Cassida*, 472
 Lacoeptera, 471, 472
tricanthus, *Xeneretmus*, 421
trichocarpa, *Riccia*, 612
Trichoptera of Lower California, The, by Herbert H. Ross, 65-75
tricolor, *Amaranthus*, 537
 Collops, 84, 130
tridactylus fasciatus, *Picoides*, 6
trifaria, *Euosmolejeunea*, 599, 601, 602, 603, 605, 609
 Lejeunea, 601
trifida, *Plagiochila*, 612
trilineata, *Cassida*, 478
 Glyphocassis, 442, 479, 480
 szechuana, *Glyphocassis*, 478, 480, 570
triloba, *Ipomoea*, 466
trilobatus, *Tometes*, 30, 38
trimaclatus, *Attalus*, 100, 108, 122
trituberculata, *Notosacantha*, 445, 450, 574
Trivia californiana, 385
trivittata, *Cassida*, 490
 Coptocycla, 490
Troglodytes, *aëdon*, 8
 troglodytes, 8
troglodytes, *Troglodytes*, 8
Trophimus, 86
 aeneipennis, 86
 impressus, 130
tuberculifrons, *Attalus*, 94, 99, 100
tuberosa, *Mitrella*, 385
Tubiflorae, 548
tucsonensis, *Attalus*, 98, 110, 111, 112, 121
tucsonensis sanctus, *Attalus*, 98, 111
turemenica, *Cassida*, 442
Turdus migratorius, 9
twinensis, *Lima*, 380
Tylocentra, 484, 485, 525, 557
 deltoides, 525
 (*Tylocentra*) *deltoides*, *Cassida*, 525
Tylocentra lenis, 525
 (*Tylocentra*) *lenis*, *Cassida*, 526
Tylocentra virguncula, 525
 (*Tylocentra*) *virguncula*, *Cassida*, 526
U-fuscum, *Cassida*, 490
ulicina, *Jungermannia*, 608
 Microlejeunea, 607, 608, 609
ulkei, *Anthocomus*, 130
umbellus phaia, *Bonasa*, 4
undecimnotata, *Cassida*, 442
unicolor, *Attalus*, 96
uniflora, *Oxytropis arctica*, 209, 298
 Oxytropis nigrescens, 202, 206, 207, 209, 211, 298
unilobatus, *Tometes*, 30, 39
uralensis arctica, *Oxytropis*, 296, 298
 minor, *Oxytropis*, 266, 267, 306
 Oxytropis, 179, 267, 306
 pumila, *Oxytropis*, 219, 226
 subsucculenta, *Oxytropis*, 246, 247, 306
ursinus, *Callorhinus*, 411
Urtica, 545
Urticaceae, 544, 545, 547
Urticales, 545
ustulata almae, *Hyllocichla*, 9
utahensis, *Attalus*, 99, 119, 120, 126
 Chimarra, 65, 67
 Chimarrha, 67
 Collops, 130
Utiaritchlys, 32
Utiaritchthys, 19, 23, 25, 26, 32
 sennae-bragai, 20, 30, 32, 60
vaginata, *Frullania*, 611

- varians*, *Aragallus*, 253
Attalus, 98, 131
Oxytropis, 183, 253, 254
Oxytropis campestris, 185, 189, 244, 248, 250, 252, 253, 254, 255, 265, 295
varius nuchalis, *Sphyrapius*, 6
vauxi, *Chaetura*, 5
vegana, *Oxytropis*, 272
veganus, *Aragallus*, 272
Aragallus pinetorum, 270, 271, 272, 274
vegetans, *Anthoceros*, 611
velaris, *Cassida*, 524
Cassida (Cassidula), 524
Cassida (Cassidulella), 524
Cassidulella, 523
velox, *Accipiter striatus*, 3
ventosa, *Oxytropis Besseyi*, 230, 231, 232, 233, 234, 235, 236, 260, 275
ventosus, *Aragallus*, 232
ventralis, *Anthocomus*, 88, 89
Verbascum, 546
Verbenaceae, 545, 546, 547
verrilli, *Munidopsis*, 395
verrucosa, *Oxytropis campestris*, 246, 248
versatilis, *Collops*, 130
versicolor, *Amphissa*, 385
Cassida, 493, 495
Cassida (Taiwania), 502, 570
Coptocycla, 502
crucifera, *Cassida*, 503
incisa, *Amphissa*, 385
Metritona, 503
Taiwania, 488
versicularis, *Metritona*, 442
vespertina brooksi, *Hesperiphona*, 11
Cassida, 485, 486
Cassida (Deloyala), 486
Cassida (Lasiocassis), 486
Deloyala, 486
vestita, *Oxytropis splendens*, 300, 302
vetula, *Aspidomorpha transparipennis*, 468
virgintisexnotata puncticolle, *Lacoptera*, 470
villosa, *Oxytropis*, 256
Oxytropis campestris, 250
villosus, *Aragallus*, 256, 257, 258
Astragalus, 256
monticola, *Dendrocopos*, 6
vincentina, *Lejeunea*, 610
vincentium, *Symbiezidium*, 607, 610
Vireo gilvus, 10
virginianus, *Bubo*, 5
virguncula, *Cassida*, 526
Cassida (Tylocentra), 526
Tylocentra, 525
viridana, *Cassida*, 516
viridimaculata collaris, *Epistichia*, 453
Epistichia, 453
viridis, *Cassida*, 521, 522
Cassida (Odontionycha), 522, 540, 542, 544
Odontionycha, 521
viridivittatus, *Attalus*, 128
viscida hudsonica, *Oxytropis*, 190, 239, 240, 243, 245, 297, 306
Oxytropis, 177, 185, 188, 191, 193, 238, 239, 241, 242, 243, 244, 254, 258, 260, 261, 288
Oxytropis viscida, 239, 240, 245
Spiesia, 239, 260
subsucculenta, *Oxytropis*, 239, 240, 247, 248, 297
viscida, *Oxytropis*, 239, 240, 245
viscidula, *Oxytropis*, 240, 242, 243
viscidulus, *Aragallus*, 240, 241, 242
depressus, *Aragallus*, 240, 241
viscidus, *Aragallus*, 239
Astragalus, 239
depressus, *Aragallus*, 243
vittata, *Cassida*, 523
Cassida (Cassidula), 442
vittatus, *Collops*, 79, 130
vivida, *Oxytropis Lambertii*, 304, 305
Volsella fornicata, 384
vulgaria, *Beta*, 514
wesethi, *Bathylagus*, 408
Whitei, *Prioptera*, 459
whitei, *Basiprionota*, 455, 459
trabeata, *Prioptera*, 459
wilsoni, *Sebastodes*, 416, 417
Wilsonia pusilla pileolata, 11
xanthocarpa, *Jungermannia*, 605
Leucolejeunea, 599, 601, 603, 604
Xeneretmus triacanthus, 421
yagenensis, *Lima (Acesta) goliath*, 380
yunnanica, *Lacoptera*, 471, 473
zebraicus, *Attalus*, 99
Zonotrichia leucophrys gambelii, 12
leucophrys leucophrys, 12
zygoteris, *Galeorhinus*, 406

ERRATA

- Page 100. Line 24 from top: for *rufumarginatus* read *rufomarginatus*.
Page 177. Publication date: for January 15 read February 7.
Page 470. Line 3 from top: for *Laccoptena* read *Laccoptera*.
Page 593. Bottom line: for *Cytrolejeunea* read *Cyololejeunea*.
Page 612. Bottom line: for *Ricca* read *Riccia*.

CONTENTS OF VOLUME XXVII

	PAGES
No. 1. ORR, ROBERT T. Observations on the Birds of Northeastern Idaho. Published March 7, 1951.....	1-16
No. 2. GOSLINE, WILLIAM A. Notes on the Characid Fishes of the Sub-family Serrasalminae. (Plates 1, 2, and 3; 6 text figures; and 5 tables.) Published March 7, 1951.....	17-64
No. 3. ROSS, HERBERT H. The Trichoptera of Lower California. (3 text figures.) Published March 7, 1951.....	65-76
No. 4. MARSHALL, M. Y. Studies in the Malachiidae. III.....	77-132
No. 5. KORRINGA, P. On the Nature and Function of "Chalky" Deposits in the Shell of <i>Ostrea edulis</i> Linnaeus. (2 text figures.) Published May 31, 1951.....	138-158
No. 6. HUBBS, CARL L., and J. L. McHUGH. Relationships of the Pelagic Shark, <i>Euprotomiscrus bispinatus</i> , with Description of a Specimen from off California. (Plates 4, 5, and 6.) Published July 30, 1951.....	159-176
No. 7. BARNEBY, R. C. A Revision of the North American Species of <i>Oxytropis</i> DC. (1 text figure and 12 maps.) Published February 7, 1952.....	177-310
No. 8. GROODY, TOM, ANATOLE LOUKASHKIN, and NORMAN GRANT. A Preliminary Report on the Behavior of the Pacific Sardine (<i>Sardinops caerulea</i>) in an Electrical Field. (4 text figures and 3 tables.) Published April 16, 1952....	311-323
No. 9. HANNA, G DALLAS. Geology of the Continental Slope off Central California. (Plates 7-14 and 1 text figure.) Published July 11, 1952.....	325-358
No. 10. CHESTERMAN, CHARLES W. Descriptive Petrography of Rocks Dredged off the Coast of Central California. (Plates 15-19 and 1 table.) Published July 11, 1952....	359-374
No. 11. CHURCH, CLIFFORD C. A New Species of Foraminifera of the Genus <i>Discorbis</i> Dredged off the Coast of California. (Plate 20, figures 1, 5, and 8.) Published July 11, 1952	375-376
No. 12. HERTLEIN, LEO GEORGE. Description of a New Pelecypod of the Genus <i>Lima</i> from Deep Water off Central California. (Plate 20, figures 12 and 13.) Published July 11, 1952	377-381
No. 13. SMITH, ALLYN G. Shells from the Bird Guano of Southeast Farallon Island, California, with Description of a New Species of <i>Liotia</i> . (Plate 20, figures 2, 3, and 4.) Published July 11, 1952.....	383-387

No. 14.	SMITH, A. G., and G D. HANNA. A Rare Species of Chiton from Pioneer Seamount off Central California. (Plate 20, figures 6, 10, and 11 and 3 text figures.) Published July 11, 1952.....	389-392
No. 15.	GOODWIN, DELBERT G. Some Decapod Crustacea Dredged off the Coast of Central California. Published July 11, 1952	393-397
No. 16.	FOLLETT, W. I. Annotated List of Fishes Obtained by the California Academy of Sciences During Six Cruises of the U.S.S. <i>Mulberry</i> Conducted by the United States Navy off Central California in 1949 and 1950. (Plates 21-26.) Published July 11, 1952.....	399-432
No. 17.	GRESSITT, J. LINSLEY. The Tortoise Beetles of China (Chrysomelidae: Cassidinae). (Plates 27-36, 1 text fig- ure, and 4 maps.) Published December 8, 1952.....	433-592
No. 18.	CLARK, LOIS. Some Hepaticae from the Galapagos, Cocos, and Other Pacific Islands. (Plates 31-41.) Published March 30, 1953.....	593-624
	Index to Volume XXVII.....	625-661
	Errata	663

Indian Agricultural Research Institute
LIBRARY
NEW DELHI-12

This book can be issued on or after _____

Return Date	Return Date	Return Date	Return Date